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TECHNICAL MANUAL

FOOD PRODUCTION, SERVICE AND SUBSISTENCE MANAGEMENT

HEADQUARTERS, DEPARTMENT OF THE ARMY

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TECHNICAL MANUAL
No. 8–504

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C. *26 June 1970*

FOOD PRODUCTION, SERVICE, AND SUBSISTENCE MANAGEMENT

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CHAPTER 1

INTRODUCTION

1. Purpose and Scope

a. This manual is a guide for the dietitian and other hospital food service personnel in managing the production and service branch of the food service division in fixed Army medical installations. It can be used also for training dietitians, dietetic interns, enlisted personnel, and civilian employees.

b. This manual contains instructions essential to obtaining, producing, and serving high quality food to patients and personnel authorized to subsist in the hospital food service facility. The major subjects discussed are the cycle menu, purchase, inspection, storage, and production of food; sanitation and maintenance of facilities and equipment; and management of meal services, including centralized patient tray service, dining room service for ambulatory patients and authorized personnel, nourishments and forced fluids, night meals and other special meals. The organization, functions, and staff essential to the efficient management of the production and service branch also are delineated in this manual.

c. The material contained herein is applicable to both nuclear and nonnuclear warfare.

2. References

This text is to be used with TM 8–500 *Hospital Diets*, TM 8–502, *Diet Therapy Management*, and TM 8–503, *Hospital Food Service Administration*. Subjects covered in other manuals are referred to but not included here. Publications cited in this text are listed in appendix A. Appendix B lists suggested written standing operating procedures and other illustrative material which may be developed locally and inserted in the text to supplement it. Appendix C contains abbreviations.

3. User Comments

Users of this manual are encouraged to submit recommended changes for improvement. Comments should be keyed to the specific page, paragraph, and line of the text in which change is recommended. Reasons should be provided for each change to insure understanding and complete evaluation. Comments should be prepared using DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commandant, U.S. Army Medical Field Service School, ATTN: MEDEW-ZNT, Brooke Army Medical Center, Fort Sam Houston, Tex. 78234.

CHAPTER 2

PRODUCTION AND SERVICE BRANCH

SECTION I. FUNCTIONS AND ORGANIZATION

4. Functions

Functions of the production and service branch outlined by AR 40–4 include menu writing, ordering, receipt, storage, and issue of items of subsistence; food preparation including operation of kitchens, pastry, and meat processing units; and the serving of food in the dining halls and centralized patient tray service.

5. Organization

An effectively organized production and service branch is illustrated in figure 1. This model can be adapted for use by either a large or a small hospital food service division.

6. Staffing

Staffing of the production and service branch and the types of positions required depend on the size and complexity of the operation. Major positions and description of duties are listed below. The duties of some may be combined when not all positions are required.

7. Daily Meetings

Representatives of the production and service and diet therapy branches meet daily to solve problems and improve dietary procedures. These meetings should be conducted so they are productive and do not become complaint sessions. They should be brief and conducted by a locally established routine. Dietitians may rotate in attending meetings. If only one dietitian is assigned to the hospital, he should attend meeting often enough to maintain control. In large hospitals it is helpful to schedule daily meetings of supervisory personnel of the production and service branch for planning, establishing goals, and resolving problems. Daily employee meetings may be scheduled so that supervisors can disseminate information to employees and make duty assignments. The time set aside for the meetings can be used also for training employees. Local procedures should be established for daily meeting schedules.

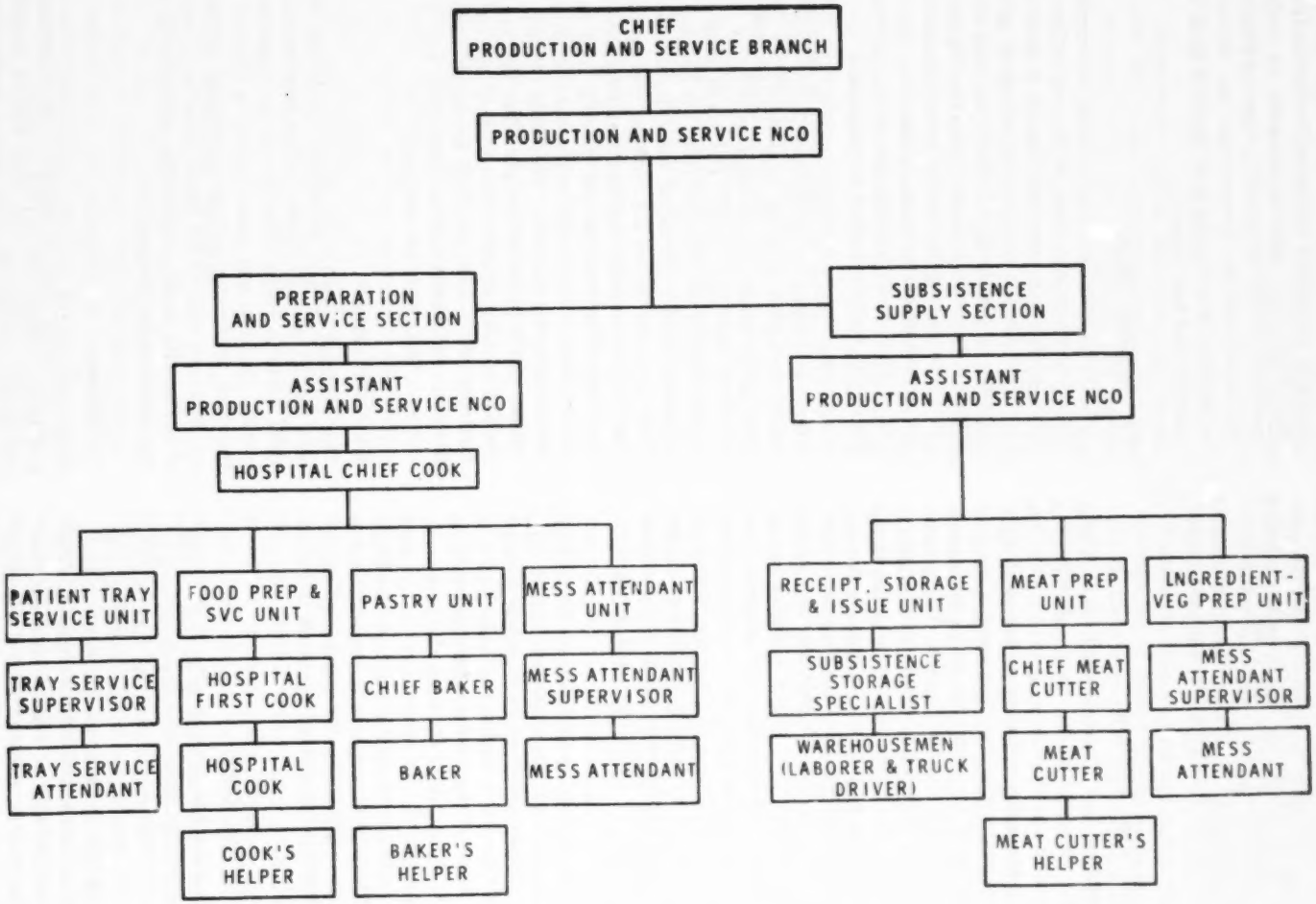

Figure 1. Organization of a production and service branch.

SECTION II. RESPONSIBILITIES AND DUTIES

8. Chief, Production and Service Branch

A hospital dietitian, MOS code 3420, usually serves as chief of the production and service branch. The dietitian exercises professional control over all functions of the branch, including training, as outlined in AR 40–4. The principles and guides contained in TM 8–503 are followed in accomplishing the personnel management responsibilities.

9. Hospital Mess Steward

a. Production and Service NCO. A hospital food service steward (NCO), MOS code 94F40 or 94Z50, serves as production and service NCO. He receives guidance and supervision from the dietitian and the senior hospital food service steward. In the absence of the dietitian, he assumes complete responsibility for the branch. The production and service NCO, as administrative assistant to the dietitian, may exercise overall supervision over the following activities: the receipt, storage, and issue of subsistence items; cooking and serving of food; tray service for patients; and overall cleaning and sanitation of kitchens, dining rooms, meat, vegetable, and ingredient processing area, and pastry preparation area. He may be responsible for the management and training of nonprofessional personnel, including the review of personnel actions to insure application of sound personnel management principles and compliance with regulations.

b. Assistant Production and Service NCO. Several hospital food service stewards, MOS code 94F40, may occupy positions as assistant production and service NCO, depending upon the size and the workload of the food service division. One assistant may be required for each shift for each section of the branch. He receives directions and supervision from the production and service NCO and the dietitian in charge. He is responsible for directing and coordinating the particular activities to be accomplished during the shift to which he is assigned.

10. Hospital Chief Cook

A hospital food service steward, MOS code 94F40, or a qualified civilian employee may serve as hospital chief cook. His responsibilities may include forecasting the census, ordering, receiving, and issuing of food into the kitchen, planning production, instructing cooks, and overall supervision of preparation and service of regular and modified diet foods. He may be responsible for enforcing departmental policies for sanitation, safety, and security. He may assist the dietitian by developing ordering guides, developing and testing recipes, and conducting studies of food yield. He helps implement cost control measures by enforcing portion sizes and by planning to avoid food waste. He supervises the preparation and delivery of nourishments and serving of modified diets to ambulatory and bed patients.

11. Hospital Cooks

a. First Cook. This position may be occupied by either a senior diet cook, MOS code 94B30, or a qualified civilian employee. The first cook is responsible for the timely preparation of items as directed by the hospital chief cook and for the training of cooks and cook trainees. Duties may include preparing the cook's worksheet and making personnel assignments, supervising the cooking of food, and directing the serving of food in the dining room and other serving areas.

b. Cooks. These positions may be occupied by either a hospital food service cook, MOS code 94B20 or 94B30, or a qualified civilian employee. Ordinarily, several cooks work on rotating shifts, including the night shift. The cooks receive assignments and instructions from the hospital first cook and from a personnel assignment schedule. Their primary duties are cooking and preparing food for both regular and modified diets according to standardized recipes and serving food in the dining room and other serving areas including the patient tray service area. They help develop new recipes and improve old recipes. They operate specialized cooking equipment and apply portion and cost controls as directed. They are responsible for cleaning and sanitation of equipment and work areas to which they are assigned.

12. Chief Baker

This position may be occupied by a baker, MOS code 94D40, or a qualified civilian employee. The chief baker is responsible for the preparation of breads, desserts, and other pastry as directed by the chief, production and service branch, or hospital chief cook and for the training and supervision of bakers. He is responsible for sanitation of his equipment and work area.

13. Bakers

These positions may be occupied by either military bakers, MOS code 94D20 or 94D40, or qualified civilian employees. The bakers receive their

work assignments from the chief baker and are skilled in the use of standardized recipes for preparing breads, desserts, and other pastry items. They develop, test, and standardize recipes. They are qualified to operate the specialized equipment required in their work. They perform cleaning tasks as required.

14. Tray Service Personnel

a. Supervisors. These positions are usually occupied by civilian employees, who work under the supervision of the production and service NCO or the hospital chief cook. They train and supervise the tray service attendants in the performance of their duties and may perform some of the tasks which require greater skill and accuracy. They direct the portioning of individual salads, desserts, and other items. They, or designated assistants, check each cold tray for accuracy and appearance at the end of the assembly operation; the responsibility for accuracy of the cold tray rests with them. They assign tray service attendants to serve food carts on specific wards and are responsible for dispatching carts to wards according to a predetermined time schedule. These supervisors are also responsible for insuring sanitary practices, including personal hygiene of the tray service attendants and cleanliness of food carts and the tray service assembly area.

b. Attendant. The tray service attendant position is a Wage Grade classification. Attendants work rotating shifts. They receive assignments and instructions from a tray service supervisor. Their duties include portioning of food; assembling cold trays as indicated on the individual menus; loading the food carriers; delivering food carriers to the wards; making final assembly of the trays; checking trays before delivery to patient by nursing service personnel; assembling and delivering early, late, and delayed trays and between-meal feedings; returning food carriers to the dish room area; cleaning and sanitizing (washing or sterilizing) food carts and the tray service area.

15. Mess Attendant Personnel

a. Supervisors. These are Wage Grade positions. The mess attendant leader is supervised by the production and service NCO. The mess attendant leaders train and supervise the mess attendants in the performance of their duties. They may function as working leaders, performing the tasks requiring greater skill and accuracy. The mess attendant leaders understand the operation of food service dish room and cleaning equipment and make sure the mess attendants use it properly.

b. Attendants. These also are Wage Grade positions. The mess attendants receive their assignments and instructions from a mess attendant leader. Their duties include washing dishes, pots, and pans, mopping, cleaning equipment and surfaces, refilling condiment containers processing vegetables and fruits, portioning desserts, serving on cafeteria line, and related tasks. The initiative and interest of mess attendants are maintained by giving them opportunities to learn how to perform a variety of tasks and operate different equipment.

16. Subsistence Supply Section Personnel

a. Subsistence Supply Section NCO. Either a hospital food service steward or supervisor, MOS code 94F40 or 94Z50, a subsistence storage NCO, MOS code 76X40, or a qualified civilian employee serves in this position. He is responsible for the overall operation of the subsistence supply section to include advance ordering with forecast figures furnished by chief, production and service branch; receipt, storage, and issue of all subsistence supplies; operation of the meat preparation unit and the ingredient-vegetable preparation unit. He may also perform all or some of the duties of the subsistence storage specialist, depending upon the size of the operation.

b. Warehousemen. These positions ordinarily are occupied by civilian employees qualified as laborers and truck drivers. They load, unload, deliver, and store supplies as directed and distribute supplies to the kitchens, using vehicles and carts as required. They clean the work and storage areas, equipment, and vehicles.

c. Chief Meatcutter. This position is occupied by a chief meatcutter, MOS code 94C40, or a qualified civilian employee. This employee is responsible for supplying the kitchen with meat, fish, and poultry in the quantities and of the types and cuts requested. He assists the chief, production and service branch, and subsistence storage specialist in preparing advance estimates for meat, fish, and poultry products. He trains and supervises the meatcutters and insures that sanitation, safety, maintenance, and housekeeping practices are applied. He maintains records and reports as required.

d. Meatcutter. This position is occupied by a senior meatcutter, MOS code 94C40, or meatcutter, MOS code 94C20, or qualified civilian employee. He prepares regular and special cuts of meat, fish, and poultry products and packages and labels them as instructed. He operates and cleans

meat processing equipment and performs other housekeeping duties as required.

e. Meatcutter Apprentice. This is a trainee position, MOS code 94A10, which is occupied by a military person or a civilian employee who has the potential ability to become a meatcutter. The apprentice works as an assistant to the meatcutter or the chief meatcutter.

f. Ingredient and Vegetable Preparation Room Personnel. An ingredient room and a vegetable preparation room are recommended as effective ways to use personnel. Mess attendants staff those areas. Such operations may be combined into one central location in the subsistence supply area. The mess attendant assigned to an ingredient and vegetable preparation room weighs, measures, and assembles raw food ingredients from recipe worksheets and prepares them for delivery to the kitchen preparation area. Fresh fruits and vegetables are prepared for the cooks. Supervision of the activity may require a food service mess steward, MOS code 94F40, or a qualified civilian employee, whose responsibilities are —

(1) To assign mess attendants to various aspects of the operations, considering the overall workload which depends upon the types of vegetables and fruits to be processed, quantities required, cuts requested, equipment available, and delivery times for processed items.

(2) To give each attendant the instructions needed for his particular assignment.

(3) To check the electrical equipment for proper functioning and make sure enough ice is available for use in preserving the freshness of food items.

CHAPTER 3

MANAGEMENT OF SUBSISTENCE

17. Introduction

An essential function of the production and service branch is the effective management of subsistence. Food items of optimum quality must be supplied to the production units in the required quantities and at the desired time for preparation of the planned menu items. This function is the responsibility of the subsistence supply section, production and service branch. It entails requisitioning, inspecting, receiving, storing, securing, processing, and issuing of items of subsistence. Food costing, inventorying, and maintenance of receipt and consumption records also are integral parts of food supply management, but they remain under the direct supervision of the chief, food service division, for monetary control.

18. Requisition of Subsistence

a. All subsistence is requisitioned from the commissary officer who supplies the items from the commissary or by contracts with local vendors for direct delivery (AR 31–200). The requests for issue are submitted in accordance with the schedule established by the commissary officer in close coordination with the chief, food service division, and local vendors.

b. Requests for issue of subsistence items are typed in the office of the chief, food service division, from advance requisitions. All requests are prepared on DA Form 3161 (Request for Issue or Turn-in) as illustrated in AR 31–200, and are serially numbered within each calendar month accounting period. The number of requisitions submitted each month depends upon the requirement for perishables, nonperishables, and items of local purchase and upon the local requisition schedule. Each requisition must contain the following statement (AR 31–200), "The supplies requested in this requisition are chargeable to (*fund citation*), the balance of which is sufficient to cover the total cost." Three copies are prepared for the commissary officer with enough additional copies to meet food service division requirements.

c. The food service division receives requests for subsistence items not routinely stocked in the subsistence section. These foods are needed in the dietary treatment of seriously ill patients and are considered emergency requests. A local written procedure should be established for procurement of such items. Special infant formula or foods requested by seriously ill patients are examples of emergency requests.

19. Inspecting and Receiving Subsistence

a. Items Issued From Commissary.

(1) The commissary representative issues subsistence only to those persons authorized by the chief, food service division, to sign for the receipt of subsistence. The names and signature cards of these persons are filed with the commissary officer. The commissary representative enters in the supply action column of DA Form 3161 the actual quantities of items issued. Items that are not available are entered as a zero. The hospital representative receiving the issues must inspect the subsistence for quality and quantity before loading the items into the vehicle. Any item that does not meet the quality standard of the hospital food service is rejected. If it cannot be replaced with an acceptable item, a zero must be entered on the invoice.

(2) All food items listed on a single DA F3161 (Request for Issue or Turn-in) must be picked up simultaneously. The authorized hospital representative signs the request for issue to verify receipt of items. Items recorded as a zero, signifying not received, will be reordered on a new request for issue and resubmitted to the commissary officer. Each request for issue is closed at the end of each day.

(3) The request for issue is submitted to the commissary. One signed copy indicating receipt of subsistence by food service is returned to the accounting clerk in the hospital food service. The remaining copies are retained by the commissary officer. He enters unit prices, price extensions, and total cost on the issue slips and returns one com-

plete priced copy to the chief, food service division.

(4) Questionable appearance or quality of meat items may require an additional inspection by the veterinary officer. He condemns and prescribes disposal of food items.

(5) Subsistence is transported from the commissary designated pickup area in a vehicle that complies with standards established in AR 40–657. Compliance is within the surveillance of the post veterinarian.

(6) The time elapsed between pickup of frozen and perishable food and delivery into food service storage must be kept to a minimum. The loaded vehicle should always be guarded to prevent pilferage of subsistence items and a consequential monetary loss.

b. Items Delivered Direct to Kitchen.

(1) Food items supplied by local vendors can be delivered directly to food service kitchens. A designated representative in each kitchen is responsible for checking the items for quality and quantity received and for signing the vendor's sales slip. The kitchen representative determines whether or not the milk and bread items meet specified standards by checking the coded markings on the containers. The key to the vendor's milk and bread code is provided by the commissary officer. The veterinary officer must be notified of any discrepancies in quality. The commissary officer must be notified of any discrepancies in quality or quantity.

(2) The signed sales slips are forwarded to the cost accounting clerk who records items and quantities received. The sales slips are forwarded to the commissary officer who records the quantities received and price in the appropriate columns of the request for issue submitted at the beginning of the current accounting period.

20. Storing and Securing Subsistence

a. General. Proper storage and security of supplies in hospital food service storerooms are two primary functions of the subsistence section. Local standing operating procedures covering the storage and security must be developed as specified in AR 40–2 and AR 40–5. Guidelines are provided below and in TM 10–405 and TM 8–503.

b. Security. All personnel assigned to the food supply section must be thoroughly oriented to Army regulations concerning misuse or misappropriation of Government property. The means of control is accuracy in accounting for all items from the time they are picked up at the commissary until they are issued to the kitchens. Subsistence supply personnel again check received food quantities against the request for issue copy provided by the commissary before items are placed in the subsistence supply storeroom. Receipt of the exact quantities recorded on the requisitions is assured. The quantities of every food item received and stocked in the subsistence supply storeroom are recorded on individual receipt and consumption records. The food supply storerooms must be secured against entry by unauthorized persons; they must not be left unlocked when unattended. Keys to the storage facilities must be guarded adequately and may be locked in a safe overnight. A physical inventory of subsistence supplies in food supply storerooms must be made at least once each month by an individual designated by the hospital commander or the chief, food service division (AR 40–2).

c. Storage.

(1) Subsistence items received in the food supply storeroom are stamped with the current date to insure proper rotation of stock. Nonperishable or dry stores are placed on dunnage. These items should be arranged alphabetically to coincide with the inventory listing. The perishable items are stored in refrigerators or freezers equipped with accurate mercury column thermometers. Specific refrigerators should be designated and labelled for the various categories of perishable foods. A space is designated for each type of meat in the meat refrigerator and new meat items are placed to the rear as received. The issue of the older stock of meat first will be assured. Drip pans, baffles, and cooling units of refrigerators must not be used for meat storage because air circulation will be impeded and ice will form on the refrigeration unit. Meat carcasses are hung on hooks whenever possible with enough space between carcasses to allow proper refrigeration.

(2) The temperature of each refrigerator and freezer should be checked daily at about 0800, 1200, and 1600 hours and recorded on the temperature log. If refrigerators or freezers are located in a building which is locked for weekends or holidays, arrangements are made for temperature checks to be done at least twice a day. The following temperatures must be maintained for meats: 0° F or lower for freezers, 32°–35°F for storage refrigerators, 50° to 55° F for meat processing areas.

(3) All storage areas, as well as areas where subsistence is received and issued, must meet the high standards of sanitation set by AR 40–5 for food preparation areas. Frequent inspections of these areas must be made to identify and correct discrepancies.

21. Processing and Issuing Subsistence

In addition to ordering and receiving subsistence, the subsistence section may have a major responsibility in the processing of foods before delivery to production units. This processing eliminates clutter of boxes, cans, and vegetable and fruit waste from the production areas; minimizes wasted activity by cooks; and gives closer control over waste in processing. The three major food processing areas which may be located in the subsistence section are meat processing, vegetable preparation, and central ingredient room.

22. Meat Processing Unit

Meat is the most expensive subsistence item used by the food service division. Therefore, standing operating procedures with specific controls to prevent waste and loss during meat processing should be established and enforced strictly. The chief, production and service branch, should be consulted in establishing and implementing this operation. For meat processing data, see TM 10–418.

a. Equipment. The equipment authorized for meat processing is listed in TA 50–911. Layout of equipment should follow the workflow characteristic of a meat processing operation.

b. Workload. The workload of the meat processing section varies from day to day, depending upon the particular meat items to be issued to production and service branch. The chief meatcutter must plan the work schedules of the meatcutters and helpers in accordance with the workload indicated by DA Form 2930 (Hospital Food Service Kitchen Requisition) and assign the tasks daily, based upon the processing required.

c. Meat Processing Record. Daily the chief meatcutter prepares DA Form 1834 (Meat Processing Record) and submits it to the chief, production and service branch, who forwards it to the cost accounting clerk for costing. All quantities on this form must be stated in "pounds." If the quantities are stated by "number of servings" on the kitchen requisition both types of measurements should be entered on the form.

d. Sanitation. The meat processing areas and equipment must be kept scrupulously clean. Once a week the refrigerators and freezers should be emptied completely and cleaned thoroughly. For specific requirements, see AR 40–5.

e. Safety Requirements. The chief meatcutter is responsible for making sure the following precautions are taken in this unit:

(1) Meat refrigerators and freezers are well lighted, alarms and devices for opening doors from the inside are in proper working order, and any liquid spilled on the floor is removed immediately.

(2) Power-operated equipment such as saws and grinders is set for proper cut before operation, with guards and guides in proper positions. Feeders are used, with operators keeping their hands a safe distance from cutting instruments. Meat grinders are stopped before food is removed from the hoppers. Equipment is disconnected from electrical outlets before it is cleaned. Equipment is cleaned by, or under supervision of, an experienced meatcutter.

(3) Knives, steels, saws, and other handtools are used only for the purposes for which they are designated. Meatcutters wear wire mesh gloves and safely aprons when cutting or boning meat. Hand hooks are used when necessary. Hooks positioned for hanging meat are removed when not in use.

(4) Power equipment is disconnected and all handtools properly stored at the end of each day.

23. Vegetable Preparation Unit

Processing vegetables and fruits for cooking and salad making entails washing, paring, trimming, cutting or shaping, and soaking. These operations are done by mess attendants assigned to the vegetable processing section. They process vegetables and fruits under the direction of a mess attendant supervisor who is accountable for the quality of the finished products.

a. Fruits and vegetables are perishable and should be refrigerated except while they are being processed. Deterioration is rapid when perishable items are removed from refrigeration. Root vegetables require vigorous scrubbing to loosen soil and other dirt particles. A brush designed for this purpose may be used. Vegetables and fruits are best washed in a collander. Vegetables and fruits placed directly into water should be lifted from water rather than allowed to stand while the water drains from them. This prevents resettling of the removed soil particles.

b. Vegetables and fruits to be cooked whole should be sorted by size during the washing process. Vegetables that require cutting should be cut into uniform sizes. Uniformity of size permits cooking of all pieces to the same degree. Electrical equipment used for peeling, chopping, and cutting should be set to the proper degree of thickness to prevent loss of edible food.

c. Greens for salads are made crisp by placing them in waterproof bags, collanders, or baskets

and sprinkling them lightly with ice flakes or cold water. The greens may be shaped or cut before or after crisping. Tender greens should be manually pulled apart or torn. Metal cutting instruments should never be used; they bruise the leaves.

d. Vegetables and fruits to be sorted and stored for later use also should be thoroughly washed. Clean vegetables and fruits do not deteriorate as rapidly as dirty ones.

24. Central Ingredient Room

a. General. The use of a central ingredient room insures closer control over issue of supplies. It is a major factor in enabling the chief, production and service branch, to maintain quality control of menu items and to control use of cooks in the production units. A central ingredient room reduces kitchen activity. In this operation all ingredients for all menu items are weighed or measured, assembled, and transported to the preparation areas according to a predetermined time schedule. This system insures that cooks follow standardized recipes since they can use only the ingredients delivered to them when preparing menu items. Specific kitchen work stations can be established and cooks assigned to a particular station. The product to be produced determines the work station. The time when actual preparation is started may be controlled by the time at which recipe ingredients are delivered to the work station.

b. Material Requirement. Floor space requirements of an ingredient room are not extensive. Any area within the subsistence supply storeroom is adequate. Equipment suggested for an ingredient room includes: mobile under-the-counter storage bins for flour, sugar and salt, a clock, a gram scale, a pound scale, condiment storage cabinet, worktable, can opener, carton opener, measuring utensils, containers for weighed ingredients, and paper or plastic bags for small quantities of measured dry ingredients.

c. Staff. The ingredient room should be staffed by a mess attendant supervisor and mess attendants. They do not need cooking experience, but potential employees should be carefully selected and trained. The tasks to be performed require persons who are alert, interested, and conscientious.

25. Operating Procedures of Ingredient Room

a. The production unit sends individual recipe worksheets to the ingredient room.

b. Personnel consolidate identical item requirements. As an example, lettuce requirements on each recipe worksheet are compiled into one total quantity.

c. A kitchen requisition (DA Form 2930) is prepared for the types and amounts of items needed for the day.

d. Meat requests indicated in the recipe are listed on a separate kitchen requisition. Meat orders are made by pounds or servings as indicated by the recipe worksheet. The meat requisition is sent to the meat preparation unit. The meat cutter is responsible for filling the meat requisition and preparing the meat processing record (DA Form 1834).

e. A kitchen requisition for all other subsistence items is filled by subsistence section personnel.

f. Requests for fresh fruits and vegetables are forwarded to the vegetable preparation unit. These items should be ordered as purchased and mess attendants instructed in the proper processing procedure as indicated on the recipe worksheet.

g. Flour, sugar, and salt are ordered by the ingredient room personnel in bulk and stored in bins in the ingredient room. Condiments also are ordered in bulk by ingredient room personnel and are stored on shelves in original containers. Additional food items requested during the day by the production unit and not included with the original requests are added to the daily kitchen requisition (DA Form 2930), dated for the using day. These items should be sent to the production unit as soon as possible.

h. The subsistence section and meat processing unit send the completed kitchen requisition to the office of the chief, production and service branch, for review. The requisitions are sent finally to the office of the chief, food service division, for costing.

i. The person calculating the recipe arranges recipes according to date and required delivery time to production unit. Ingredients for each recipe are measured, weighed, and assembled. Meats, fruits, and vegetables are to be included in the assembly.

j. Recipe ingredients are placed in a suitable container for transport and delivery to the production unit.

26. Inventorying and Costing Subsistence

The inventorying and costing of subsistence are done under the direct supervision of the chief,

food service division. The chief, production and service branch, must know the financial status of the operation at all times as this greatly affects menu planning and points out the need for implementing stricter cost controls. He should be aware of all items on inventory so that he can plan the use of "slow-moving" items and control requisitions.

CHAPTER 4

FOOD PRODUCTION INSTRUMENTS AND GUIDES

Section I. INTRODUCTION

27. Basic Instruments

The basic instruments used in food production are master menus, advance requisitions, cook's worksheets, food code worksheets, recipe worksheets and recipes, ingredient delivery schedules, kitchen requisitions, and personnel assignment schedules. Proper preparation and use of these instruments insure a systematic approach to production of food for hospitalized patients. Other instruments and guides discussed in this chapter also are essential to effective food production. Local standing operating procedures (SOP's) should be developed to assure that all food production instruments are prepared and used correctly. General guides for developing procedures are provided in this chapter.

28. Primary Purpose of Instruments

Master menus are the first instruments used in planning for all hospitalized patients to receive food which will meet their dietary requirements. Advance requisitions enable the commissary officer to have specific food items available when they are ordered by the hospital. The food code worksheet and cook's worksheet are basic planning instruments used for completing other production forms and recording information for future planning. A recipe worksheet may be used for ordering menu item ingredients from the ingredient room and instructing cooks in standard methods of food preparation. An ingredient delivery schedule may be developed and used as a check in the ingredient section and the production unit to assure timely delivery of menu item ingredients in the production area. The food requisition for nonkitchen produced foods is used by production units to requisition stock level items which appear frequently on food code worksheets but do not require recipe worksheets for preparation. The personnel assignment sheet can contribute to the fulfillment of specific objectives. It assures optimum use of cooks and serves them as a written reference of daily work assignments. It also contributes to quality food control. Either the cook's worksheet or a locally developed personnel food production worksheet can be used as a personnel assignment schedule.

Section II. MASTER MENUS

29. Types

The master menu includes the regular and modified diet. It is prepared at least 3 months in advance to cover a predetermined period. The menu may be written as a cycle and may be repeated for a predetermined time. A separate cycle may be prepared for summer and winter or the same menu may be used indefinitely with seasonal adjustments. It is helpful to develop a calendar of the exact dates on which each week of the cycle will be repeated. The calendar could also list the dates for submission of advance requisitions, the latest dates when additions and deletions are made in advance requisitions, the dates when menus are reviewed to meet printing schedule, and the dates when menus should be distributed.

30. Regular Master Menu

a. General. The regular master menu is the basic weekly menu designed to meet the general nutritional requirements of hospitalized patients. It is written by the chief, production and service branch, and approved by the chief, food service division.

b. Procedural Guides. The regular master menu is developed according to menu planning princi-

ples and local SOP's. Foods are written on the hospital master menu, using accepted abbreviations (app C). Then the menu is printed in a standard format developed locally. This weekly menu may be placed on hospital bulletin boards and distributed to other departments, divisions, or sections of the hospital. The factors listed below should be considered in planning the regular master menu.

(1) *Dietary requirements of hospitalized patients.* TM 8-500 and AR 40-25 specify the daily nutritional requirements to be attained in all hospital-planned menus.

(2) *Cost of food.* The following instruments are useful in planning menus within the authorized cost value of the daily food allowance:

(*a*) A chart which depicts monetary value of the hospital daily food allowance for each of the preceding 12 months or more in the food service division.

(*b*) Current commissary price list. This is useful in determining whether a particular food item is within the cost allowance and is available.

(*c*) Individual portion food cost reports. These studies are helpful in determining whether a specific menu or set of menus is within the hospital ration allowance.

(*d*) Recipe worksheets (para 38). These show the ingredients required for preparation of food items and so serve as guides in determining the cost. Recipes may be costed at the time they are standardized. Costed recipes must be recalculated periodically to adjust to price changes if they are to be effective in cost control.

(3) *Availability of foods.* The following instruments are useful in determining the future availability of certain foods.

(*a*) *Seasonal food availability list.* This list tells which foods are ordinarily plentiful in a local area during various seasons, enabling the dietitian to include fresh foods on the menus when they are usually least expensive.

(*b*) *Delivery schedules.* Review of these schedules makes it possible to plan for the use of highly perishable foods on days when their delivery is scheduled and other special foods on days when they will be available, thus preventing needless changes and substitutes later.

(*c*) *SB 10-260, Master Menu.* This supply bulletin is a monthly publication of the master menu planned for nonhospital feeding. It may be practical to use the same perishable foods on the hospital menu on the same days indicated for the troop dining halls. The master menu is available in the post food advisor's office and the commissary office.

(4) *Acceptability of foods.* The following instruments are helpful in avoiding inclusion of very unpopular food on menus and in using food items most acceptable to patients:

(*a*) Local survey reports of patients' acceptability of foods. Food items suggested informally by patients and duty personnel also are helpful.

(*b*) Local list of menu suggestions.

(*c*) Analysis of the U.S. Army Food Preference Survey (app. A) and commercial reports of food preference.

(5) *Availability of personnel and equipment.* The following instruments are essential in planning menus which can be produced with the available personnel and equipment:

(*a*) *Master work schedules.* These show the number of personnel assigned to various positions on the different shifts (TM 8-503).

(*b*) *Recipe worksheets.* These recipes reflect the workload and equipment involved in preparation of the food items.

(*c*) *List of special considerations.* A locally prepared list of special considerations, including those outlined below, is an essential guide in planning menus.

1. Workload preparation of food items imposed on various cooks of different specialities.

2. Specific days on which a particular section will be closed. *For example,* pastries cannot be served on days when the pastry unit is closed unless they can be prepared in advance and stored successfully.

3. New menu items for which recipes must be standardized. Normally, a limitation is placed on the number of new recipes which can be standardized during a specified period.

4. Availability of regular and special equipment necessary for preparation of food items.

31. Modified Diet Master Menu

The modified diet master menu prescribes the food items to be served to patients on modified diets. It is written by a designated dietitian assigned to the diet therapy branch on the hospital master menu in compliance with the requirements for hospital regular master menu. After this menu is written it is reviewed by the chief, production and service branch, for the availability and cost of the food items, availability of recipes and equipment needed and the workload which

the preparation of these items will impose on personnel. Agreement to any required adjustments or changes can best be reached in a meeting where the two dietitians can discuss the needs and problems involved. The modified diet master menu in which both branches have concurred is forwarded to the chief, food service division, for review and approval.

32. Weekly Review and Modification of Master Menus

Each week the portions of the master menus used the previous week are reviewed and changed to improve the acceptability of food items, correct errors, use seasonal foods, and provide variety when the menus are served. This function requires the integrated efforts of the personnel of both production and service and diet therapy branches. The review and changes are ordinarily done if a meeting of personnel from both branches, using the observations made and the information obtained in regard to patient satisfaction as well as the factors considered in initial development of the menus. Changes are made in the modified diet master menu by the diet therapy branch only with the approval of the chief, production and service branch, and chief, food service division. Changes are made in the regular master menu by the production and service branch only when approved by the chief, food service division, and when enough time remains for the diet therapy branch to make corresponding changes in the modified diet master menu. Deadline dates for making changes on master menus are established in relation to the dates on which food items are requisitioned by the subsistence section.

Section III. ADVANCE REQUISITIONS

33. General

a. The advance requisitions are estimated quantities of certain subsistence items appearing on menus for a specific calendar period. Ordinarily they are prepared for meat and meat products; poultry products; seafood; butter, cheese, and eggs; water-packed foods; frozen fruits, vegetables, and juices; shortening; and fresh fruits and vegetables.

b. The requisitions are prepared for submission to the commissary officer to enable him to have specific items available when the hospital needs them. Usually, a provision is made for increasing or decreasing the advance estimates. However, when an item is procured by the commissary for hospital use only, the hospital is ordinarily required to accept the entire order.

34. Procedural Guides for Preparing Advance Requisitions

a. Advance requisitions should be prepared jointly by the subsistence storage specialist and the chief, production and service branch, or his designated representative. The chief of the meat processing unit should assist in determining the advance meat estimates.

b. The commissary officer specifies the subsistence items and submission dates for advance requisitions. Format for these requisitions is determined locally.

c. The following documents are useful in preparing advance requisitions: master menus, food code worksheet, recipe worksheets, receipt and consumption record, local commissary price list, hospital ordering guide, food portions standards, local seasonal food availability list, food cost control records, and monthly inventory of food. A complete SOP for preparing advance requisitions should be developed locally.

Section IV. FOOD PRODUCTION WORK PLAN

35. Cook's and Food Code Worksheets

a. DA Forms 1826, 1826–1, and 1826–2 (Hospital Food Service Cook's Worksheet) are intended for all menu item preparation. This tool for production control includes the menu item, time of preparation, quantity to be produced, personnel assigned to preparation, and estimated number of persons to be fed.

b. The food code worksheet consists of DA Forms 2932, 2932–1, and 2932–2 (Food Code Worksheet—Parts I, II, and III). It provides for all regular and modified diet menu items appearing on all daily menu patterns.

c. These two worksheets, or instruments, are combined to make a food production work plan. The combination of the food code and cook's

worksheets is commonly called "food production worksheet," and is described in paragraph 37.

d. Required recipe quantities and ingredients and time of delivery can be developed into recipe worksheets and delivery schedules. Personnel assignment rosters also can be developed from the food production worksheet.

36. Guides for Preparing Cook's and Food Code Worksheets

a. The chief, production and service branch, is responsible for the preparation and filing of all cook's worksheets. The staff dietitians, production and service noncommissioned officer, and hospital chief cook should know how to prepare worksheets and, in most hospitals, actually complete them.

b. Worksheets should be prepared 4 days in advance of required use. Each hospital food service division determines the best time sequence for its operation. Instructions for preparation of food code worksheets are contained in TM 8–502.

37. Food Production Worksheet

A food production worksheet is prepared by combining DA Forms 1826, 1826–1, 1826–2 (Hospital Food Service Cook's Worksheet) and DA Forms 2932, 2932–1, and 2932–2 (Food Code Worksheet). Ordinarily, one worksheet is required for breakfast, two for dinner (hot and cold food items), and two for supper (hot and cold food items). Food production worksheets are assembled in the order in which foods will be delivered from the subsistence section. Worksheets for dinner and supper of 1 day and breakfast of the following day are assembled together since breakfast items are normally delivered the afternoon before they are used.

a. Preparation. Preparation of a food production worksheet for each meal entails the following steps:

(1) ***Combining worksheets.*** The food code worksheet, on which are recorded all food items for both regular and modified diets, is attached to the cook's worksheet.

(2) ***Recording recipe numbers.*** The person preparing the food production worksheet selects the recipe to be used for each menu item. Recipe numbers are taken from a standardized recipe file index. These numbers correspond to those on the recipe worksheets for individual menu items. If a cycle menu is used, the information concerning recipe numbers can be taken from previous worksheets which are on file. The recipe numbers recorded on the food code worksheet are used by personnel to remove and assemble from the recipe worksheet file the correct recipe worksheet for each menu item each day.

(3) ***Forecasting census and number of servings required.***

(*a*) The person responsible for preparing the worksheet records in longhand the estimated numbers of persons to be served regular and modified diets in wards and the dining hall and the servings required. The forecast of the census is based on experience, considering factors which may influence the number of persons to be served. DA Form 1833–1 (Hospital Food Service—Meals Served Record), completed in the office of the chief of food service, should be available to production and service branch to use as a basis for census forecasting. Careful study of this record should show census fluctuations due to weekends, holidays, paydays, and weather.

(*b*) The food code worksheet tally (TM 8–502) is used to forecast the number of servings of individual modified diet items to be prepared. This tally is prepared by the diet therapy branch as deemed necessary. It lists the number of servings required of each modified diet item based upon the modified diet census.

(*c*) If a selective menu is offered, experience and judgment are the best guides for forecasting the percentage of customers who will choose each menu item. When a cycle menu is used actual menu item counts should be taken in the cafeteria of the number of persons selecting the different items. Actual counts can be converted to percentages and recorded for reference in forecasting the number of servings of each choice to be ordered and prepared when a particular combination of food reappears on the menu cycle.

(4) ***Recording delivery time from ingredient room to production units.*** Proper delivery times for ingredients for each menu item must be planned carefully. Factors to consider are total workload, preparation time required for each menu item, personnel available, and equipment to be used. Two or more delivery time schedules are required when ingredients have to be trucked from an area not adjacent to the work station in the production unit. A schedule of departure from the ingredient room and a schedule of arrival at the production unit should be established. Delivery times for each menu item are recorded in the proper column on the food production worksheet and later transposed to individual recipe worksheets.

(5) *Recording work stations and station delivery times.* This information is used as a basis for planning personnel food production worksheets (para 43). Throughout the day it may be referred to by the person responsible for receiving and delivering food supplies and ingredients to the proper work center when preparation is scheduled to begin. The planning of work stations and station delivery times should consider the factors outlined in (4) above. To get sound data for planning, it may be necessary to do special studies of times actually required for preparation of specific menu items. All such data should be recorded and used for future planning.

b. Other Uses. Food production worksheets contain valuable data for future planning. The worksheet for the corresponding meal on the previous cycle is a source of recipe numbers. The actual census for each meal is recorded and shortages or overages of individual menu items are noted. Analysis of this information shows whether shortages or overages were caused by an improperly estimated census, improper ratios of choice items, lack of portion control, inaccurate recipe yields, or improper cooking.

c. Disposition. At the completion of each day, the food production worksheets are filed in folders by day, date, and week, and are retained in the production and service branch at least until the next running of the menu cycle. Then they may be discarded.

Section V. RECIPE WORKSHEET AND INGREDIENT DELIVERY SCHEDULE

38. Recipe Worksheet

The recipe worksheet is the basic tool of food production. It is used by ingredient room personnel for requisitioning food items from the subsistence storeroom, by meat and vegetable preparation units for weighing, measuring, and assembling, and by cooks for preparation of menu items. A recipe worksheet must be filed in the production and service branch so that a separate copy can be used for each menu item each time it appears on the menu. Recipe worksheets are numbered to correspond with a standard recipe index which may be cited in ordering additional worksheet copies. Recipe worksheets are prepared for each menu item which requires kitchen preparation, whether it is a multiple or a single ingredient menu item.

39. Instructions for Preparing and Using Recipe Worksheet

a. Using recipe numbers recorded on the food production worksheet, one copy of the recipe worksheet for each menu item listed is removed from the file. Food production worksheets must be checked at least 2 days in advance so that advance preparation items like baked beans, will be received in the kitchen in time for preparation. These items are often prepared by the night cook.

b. The food production worksheet contains information required on the recipe worksheet. The number of servings required, census, work stations to which ingredients are to be delivered, and delivery time, day, and meal are written at the top of the recipe worksheet.

c. Recipe worksheets are printed for 100-portion yield. A designated person in the production and service branch calculates the requirement of each ingredient for the number of portions actually being prepared, and records this information in the proper column on the recipe worksheet.

d. Recipe worksheets for a day's preparation are sorted according to delivery time and the ingredient delivery schedule is prepared.

e. Recipe worksheets are forwarded to the ingredient room according to a predetermined schedule.

f. Upon receipt of recipe worksheets, ingredient room personnel requisition supplies and assemble ingredients.

g. When ingredients are delivered to production units, a designated person checks all deliveries against the ingredient delivery schedule to make sure all items have been received, stores ingredients as necessary in the kitchen, and delivers ingredients to work stations at proper station delivery times.

h. Recipe worksheets accompany the delivered ingredients and are used by cooks as a guide for preparation of menu items. Information regarding portion sizes, recorded on the recipe worksheet, is used as a basis for size of servings used in dining room and patient tray service.

i. After the cook prepares the food item, he records on the recipe worksheet suggested changes in the recipe to improve the quality of the finished product. He also records the actual preparation time for the menu item. Personnel tasting the finished product also should record comments concerning quality and acceptability.

f. After the product is prepared, recipe worksheets are returned to the chief, production and service branch, or his designated assistant, who evaluates the information recorded by the cook and others who tasted the product and corrects recipes which are substandard. Valid data for preparation times which can be used for future planning are recorded. Then recipe worksheets are discarded.

40. Ingredient Delivery Schedule

This schedule is a list of menu items to be prepared for dinner and supper of 1 day and breakfast of the following day, grouped according to the time that ingredients are to be delivered from the ingredient room. Recipe worksheets are arranged according to needed delivery time for ingredients. The ingredient delivery schedule is prepared in duplicate in the production and service branch from the recipe worksheets. One copy is forwarded to the ingredient room and one copy is kept in the production unit. It is discarded after use as a check by both units to make sure ingredients for each menu item have been ordered and delivered.

Section VI. REQUISITION FOR NONKITCHEN PRODUCED FOODS

41. General

The production and service unit has routine subsistence requirements that need not be supplied by the ingredient room. Examples of these requirements are dry cereal, canned and frozen juices, canned baby food, regular and dietetic canned soups and fruits, various frozen meats, nourishments, and formula ingredients. These items appear daily and are stocked routinely in the production area. The term "non kitchen produced" is descriptive and items of that type should be ordered on Form 2930 (Hospital Food Service Kitchen Requisition). Since these subsistence items may become a standard daily order, DA Form 2930 may be overprinted to facilitate orders, issues, and accounting. A stock level of items that can be prepared quickly (for backup) must be maintained if the production area and the ingredient room are not close together.

42. Preparation and Use of Requisition

a. Supervisors in patient tray service and kitchen areas will keep a daily inventory of stock items. The difference between the established stock level and the inventory is the quantity requisitioned on DA Form 2930.

b. The requisition is forwarded to the food supply section at a time determined locally.

c. Subsistence personnel fill the order, record quantities issued, and sign the requisition, the requisition accompanies the ordered subsistence to the production unit, where it is checked for accuracy and signed by the receiving person.

d. Requisitions are sent to the accounting unit, office of the chief, food service division, for costing and filing.

e. Production and service branch should develop written procedures for the operation and control of requisitions. Loss of requisitions can result in undelivered subsistence items or unaccountable consumption of subsistence with a resulting financial discrepancy.

Section VII. PERSONNEL FOOD PRODUCTION WORKSHEET

43. Uses

a. Food production personnel daily assignments may be recorded on either the food production worksheet opposite the menu item to be prepared or on a personnel food production worksheet devised locally.

b. The personnel food production worksheet is used daily to assure that cooks are used best to accomplish the workload, trained to work in all areas shown by their job descriptions, and informed of the specific areas where they are to work during specified hours of their shift. The worksheet also serves as a tool in planning for best use of personnel, equipment and facilities, for timely preparation of food to improve quantity, and for better supervisory control of activities in production and service units.

c. The worksheet may be used for personnel in pastry and other units of the production and service branch, but is essential for cooks. Workloads vary in the main cooking area, cafeteria line cooking area, and patient tray service area according to the daily changes in menu requirements. Productivity is increased when each cook, upon reporting for duty, can report immediately to his work area and proceed with his work without delay.

d. Advance planning for accomplishment of the total workload is of primary importance in any hospital food service. Data may be used from specific time studies. Maximum use of skilled cooks is basic in controlling personnel costs and achieving quantity in food production at a reasonable cost.

44. Procedural Guides for Preparing and Using Personnel Food Production Worksheet

a. Normally either the production and service NCO, hospital chief cook, or hospital head cook is responsible for preparing the personnel food production worksheet. It is prepared 1 day before its effective date.

b. When the worksheet is being planned, the workload is evaluated as to how, where, and when it must be accomplished and quantities required. The workload on a certain day may involve not only preparation of that day's menu items but also advance preparations for the next day's menu items. In determining the personnel available to accomplish this workload, planners must consider the number of personnel actually scheduled for duty on each shift of the day being planned. Also to be considered are the performance record of each cook, duties in which he has been trained, and how much supervision the personnel in each working area will require. Skilled cooks may perform specific duties, such as meat cookery, and their duty schedules must be planned according to the type of meat on the menu and the amount of preparation involved. Data required for planning are obtained from the master menu, food production worksheet, and recipe worksheets. Consideration must also be given to the schedule of dining hall meal periods and the time required for cleaning and maintenance of work areas and equipment.

c. Before the worksheet is established a preliminary plan should be developed to guarantee maximum use of all cooks and adequate coverage for each work area.

d. Cooks should be listed by name, not letter or number, on the assignment sheet. The sheet should be discussed with cooks in meetings, then posted in a location convenient for them to check it frequently throughout the day.

e. During each meal or at the end of the meal, as appropriate, any helpful information or problems encountered should be noted on the worksheet and initialed. *For example,* notes made on the worksheet for the early shifts may indicate a need to revise the worksheet for the late shift.

f. At the end of each meal or each day, as appropriate, the worksheet is removed from its location by the person responsible for it and filed. After that it is used in planning future worksheets and is made available for review by the supervisors for counseling and training when certain cooks cannot perform assigned duties satisfactorily.

Section VIII. OTHER USEFUL INSTRUMENTS

45. Night Supper Menu

a. The night supper menu is developed for use in preparing and serving a meal to duty personnel working on the 2300-to 0700-hour shift. This meal may, if requested, be served to patients who are admitted to the hospital during the meal period. The menu may be planned for a breakfast meal, secondary meal, or main meal, depending upon the preference of the majority of the personnel working this shift. If no preference is indicated, the regular master menu for the noon meal of the following day is ordinarily used with necessary change in certain pastry items. The night meal must consist of high quality food, not leftovers from meals served during the day.

b. Cash charges must be consistent with the type of meal planned and every meal served strictly accounted for. The number of persons served the night meal is seldom adequate to compensate for the cost of food service personnel required to prepare and serve it. If very few persons are to subsist at the night meal, the serving of box lunches should be considered to economize on the number of food service personnel required for night duty. Box lunches are usually not acceptable when night duty personnel are to remain on the night shift for 2 weeks or indefinite periods. However the serving of box lunches on 2 nights and hot meals on 5 nights may be satisfactory. As another cost reduction measure, the food service personnel on night duty must be used to the maximum in performing duties which will lessen the workload on the day shift and can be done as well or better during the night. Such duties include destaining china and silver, cleaning large equipment, preparing certain vegetables for the next day, and preparing and portioning breakfast fruits and juices.

46. Temperature Logs for Refrigerators

a. General. The temperature log, which production and service branch maintains for each refrigerator is posted outside the refrigerator, for checking and recording temperature.

b. Procedural Guides for Preparation and Use.

(1) Each month the production and service NCO prepares a locally designed temperature log for each refrigerator.

(*a*) Preparation of the log sheet includes entering the period of time for which it is to be used, the number and location of the refrigerator, and the temperature at which the refrigerator is to be operated. The log sheet must have space for recording the temperature at specified times each day and for initialing each entry.

(b) Temperatures at which each refrigerator is to operate are established by AR 40–5. This regulation requires that equipment used for holding chilled items be operated between 32° and 45° F. Fresh fruits and vegetables may be refrigerated above 45° F when necessary to promote longer life. Frozen foods, except ice cream, must be stored at temperatures below 10°F. Ice cream must be stored at 0° F or lower until tempered for serving.

(*c*) A new log sheet is posted on each refrigator no later than the date of expiration of the existing one. All completed log sheets are reviewed, held for a month, and then destroyed unless they contain information with future use.

(2) The responsibility for checking and recording the temperature of the refrigerators is ordinarily assigned to the hospital chief cook or another supervisor. The night cook or supervisor is usually responsible for the 2400-hour (midnight) check. This midnight check is not made routinely on refrigerators in buildings locked overnight.

(3) The hospital chief cook or supervisor's duties are as follows. He—

(*a*) Makes prescribed daily readings of the thermometer.

(*b*) Logs the reading, initials it, and draws a circle around any recorded temperature which is above or below the prescribed temperature stated on the log sheet.

(*c*) Insures that the refrigerator door seals securely when it is closed and the refrigerator is not overcrowded, especially around the cooling unit.

(*d*) Reports to the subsistence supply NCO any unexpected deviations from the prescribed temperature. When large quantities of food items are first placed in a refrigerator, the temperature in it is expected to rise for a short time.

(*e*) Makes interim checks on a refrigerator any time its temperature is above or below that prescribed. If the temperature does not adjust within a reasonable time, reports this to the subsistence supply NCO.

(4) Repairs are normally made during duty hours. A request to have repairs made after duty hours must be justified as necessary for preserving food.

47. Food Portion Standards

a. General. Food portion standards are quantities determined to be appropriate for small, medium, and large portions of the various menu items served on regular and modified diets. The portion sizes are expressed in weights, measures, or item counts. The standards also include descriptions of the measuring instruments and utensils needed in dispensing certain food items in accurate portions. In addition, standard portions may be the best instrument on which to consolidate the costs of the medium portions for all menu items.

b. Uses. Food portion standards are used by diet therapy personnel in developing dietary menu plans and by production and service personnel in determining quantity requirements for food requisitioning and production and dispensing the proper quantities of menu items for tray and dining hall services. Food portion standards are the principal guidelines in preventing overages and shortages in menu items, thus controlling food cost, and in avoiding uncontrolled variations in the nutritional value of meals.

c. Procedural Guides for Preparation.

(1) Preparation of food portion standards is the combined responsibility of the production and service and diet therapy branches.

(*a*) The chief, diet therapy branch, is responsible for determining the standard quantity of the medium portion for each food item. The medium portion indicates the quantity necessary to meet the dietary requirements for diets delineated in TM 8–500. The medium portions for food items in diets not included in TM 8–500 are calculated as needs arise and are added to the published standards.

(b) The chief, production and service branch, in consultation with diet therapy personnel, determines the standard quantities for small and large portions, based upon the quantity specified for the medium portion, the items nutritional content, cost, and use, and the satisfaction of the patrons. These quantities should be modified as

needed. If patrons leave food on trays or complain of inadequate quantity that may indicate standards are too high or too low.

(2) Standards must be determined for all menu items commonly used in the local master menus and food code worksheet. Food items should be classed as appetizers, beverages, bread and rolls, cereals, desserts, eggs and breakfast entrees, juices and fruits (breakfast), meats and fish and other entrees, potatoes and substitutes, salad dressings, salads, soups, vegetables other than potatoes, and ingredients for sandwiches.

(3) Standard portions for each menu item appearing on the food code worksheet are shown on the recipe worksheets so personnel can easily refer to them. Recorded on the recipe worksheet are standard portions for medium servings in the dining room, and small, medium, and large servings in patient tray service. This information should also be disseminated to cooks in meetings.

(4) Suggestions for changes or improvements in the food portion standards should be encouraged. Suggestions should be submitted in writing to chief, production and service branch.

48. Food Cost Control Records

Controlling the cost of food requires the coordinated efforts of all the personnel in the food service division. Each person must be fully aware of how he or she can prevent unnecessary food costs. Management personnel in the production and service branch must be able to assemble, use, and analyze data to control food costs effectively. Current food costs can be compared to recorded costs of previous menu cycles for month, day, and year. (For a discussion of food cost management, see TM 8–503.) The following records are especially used for in the study and management of food costs:

a. Recipe worksheets.

b. Reports of studies of food yields and cost by portion and food portion standards.

c. Commissary price lists.

d. Seasonal food availability lists.

e. Food production worksheets.

f. Hospital food service kitchen requisitions for nonkitchen produced food.

g. Meat processing record.

h. Monthly inventory priced and extended.

i. Records of total cost broken into food categories such as meats, fresh fruits and vegetables, eggs and dairy products, and staples.

j. Receipt and consumption records.

k. Meals served record and ration record (TM 8–503).

l. Daily record of hospital food service operations (TM 8–503).

m. Quarterly hospital food service reports (TM 8–503).

n. Charts or graphs which depict the following:

(1) Cost of daily issues in relation to the daily authorized allowance.

(2) Cost of issues by month in relation to the authorized allowance.

(3) Difference each month between the authorized hospital ration rate and the actual hospital ration rate. Knowledge of trends and fluctuations in rates helps in predicting future ration rates and making timely purchases of some food items.

(4) Differences between estimated census and actual census for a period of time.

(5) Differences between headcount figures reported in the ration source data worksheet (TM 8–503) and the spot check figures of actual meals served from the cafeteria line. Inaccurate reporting may affect cost.

(6) Monthly differences in the monetary value of all subsistence items on hand in the central supply storeroom for the current year and the previous year (TM 8–503). Wide fluctuations in the monthly value of the inventory affect the entire cost control system.

49. Seasonal Food Availability Lists

These lists show the food items which are in plentiful supply and in scarce supply during each month of the year. They can be procured from several sources or compiled locally. The lists used most frequently are provided by the subsistence market centers and Department of Agriculture. Many commercial companies publish lists of the specific food products they supply. For use of these lists, see development of master menu (para 30) and preparation of advance requisitions (para 34).

50. Commissary Price List

This publication lists the prices of all food items available through the commissary and the unit quantities in which they can be purchased. It is prepared by the commissary officer to be effective for the commissary accounting period. Supplements to the commissary price lists are published as necessary to add new items and to correct errors. For use of the commissary price list, see

planning and costing of master menus (para 30), recipes (para 61), and food portions (para 47). For more about commissary price list, see AR 31–200.

51. Survey Reports

Reports of formal and informal surveys indicating the patient's acceptability of food served in wards and the dining halls are available to the personnel of the production and service branch. Patient Satisfaction Survey (DA Form 3611–R) (fig. 2) will be used to conduct the formal survey and will be locally reproduced on 8- × 10½-inch paper (image size 7 × 9⅛). These surveys are valuable aids in improving the master menus; preparing food, and managing meal services. The chief of the production and service branch should make certain the surveys include areas which will be helpful to his branch by participating as much as possible in composing questions used in making the surveys. The questions should be useful and not place an undue burden on the patients.

52. Menu Suggestions

a. A list of menu suggestions should be developed and maintained in the food service division. This list is helpful in introducing variety into regular menus and planning for use of food items which are highly acceptable to patrons. The acceptability of many foods varies in different regions of the country. *For example,* Mexican foods and ranch-type meals are skillfully prepared and highly acceptable in southwestern United States.

b. Menu suggestions are available from varied sources, including food acceptability survey reports, recipe files, and various monthly publications, including SB 10–260. This supply bulletin contains a master menu for the use of Army field dining halls. It also provides current information about the introduction of new foods into the Army food service program, enabling production and service personnel to evaluate the foods for use in hospital menus as they are being introduced into the subsistence supply system. SB 10–260 may be useful also in identifying foods which are highly acceptable to patients who normally subsist in field dining halls.

53. Food Code Worksheet

a. (DA Forms 2932, 2932–1 and 2932–2) Food Code Worksheets are a descriptive, coded list of all food items, hot and cold, to be served for breakfast, dinner, and supper on a particular date. The food items are transcribed from the master menu which reflects food items for both regular and modified diets. The food code worksheet is prepared in the diet therapy branch and published at least 7 working days before its effective date in enough copies to provide designated personnel in all food service branches with personal copies for planning and operational purposes.

b. Production and service personnel use the food code worksheet as a basic guide in the preparation of the advance requisition and the food production worksheet. It is the authority for using special foods in the assembly of trays for bed patients and a reference when a food item needs to be substituted for one which is not available. The chief of this branch evaluates food code worksheets periodically for possible additions and deletions in the diet code lines and recommends changes to the chief, diet therapy branch.

54. Hospital Ordering Guide

The hospital ordering guide shows the weights or sizes of the units in which various fresh, frozen, and canned food items are supplied. Some ordering guides also indicate the approximate yields which can be expected from specified quantities of certain food items and the allowances which should be made for losses in processing. The ordering guide is useful in developing recipe worksheets for single ingredient menu items such as buttered vegetables.

55. Receipt and Consumption Record

DA Form 1835 (Hospital Food Service Food Receipt and Consumption Record) is maintained in the office of the chief, food service division, to account for all food items received and consumed except the direct deliveries and to determine quantities of food items needed when submitting requisitions to the commissary officer. This record is useful to the personnel of the production and service branch and subsistence section when they meet to prepare the advance requisitions. The chief, production and service branch, may review it periodically to detect any possible trends in the use of such expensive items as cherries, pecans, and butter.

56. Monthly Inventory of Subsistence

The food items in the hospital subsistence supply storerooms are inventoried the last day of each month on DD Form 160 (Inventory of Class ( ) Quartermaster Supplies) by an individual desig-

FOOD SERVICE DIVISION - PATIENT SATISFACTION SURVEY

(For use of this form see TM 8-504; the proponent agency is the Office of The Surgeon General)

In order to assist the Food Service Division in giving you satisfactory meals and service, please check "YES" or "NO" to the following questions. If you wish to make additional comments or remarks, please use the space provided for this purpose.

	YES	NO
1. Are you on a diet which permits you to read the menu in advance and to select the size portions that you desire?		
2. Are the heated food items hot enough for you?		
3. Are the chilled food items cold enough for you?		
4. Have all of your favorite foods been served? If answer is no, please list the food items.		
5. Have you other suggestions for improving the preparation and serving of food? If your answer is yes, please list your suggestions.		

COMMENTS AND REMARKS

DA FORM 3611-R, 1 Jun 70

(Paper size 8 x 10½", image size 7 x 9-1/2")

Figure 8. DA Form 3611-R (Food Service Division—Patient Satisfaction Survey).

nated by the chief, food service division, or hospital commander. The food items are then priced and extended. The monthly inventory record is useful to the chief, production and service branch, and the subsistence specialist when they meet to prepare advance requisitions. It is also used in selecting a substitute when a shortage in a menu item occurs.

57. Daily Diary

A daily diary or log is kept in each branch of the food service division as a place to record facts obtained by observations, informal evaluations, and telephone conversations. The diary is valuable to production personnel in discussing and solving daily problems and planning overall improvement of the dietary treatment program.

CHAPTER 5

PREPARATION OF FOOD

Section I. PRODUCTION PRINCIPLES

58. General

a. The daily food preparation functions of the production and service branch entail the preparation of hot and cold menu items of regular and modified diets for breakfast, dinner, and supper; between-meal nourishments and forced fluids; and night meals. Special food preparation functions entail the preparation of food items for holiday, travel, picnics, and special activities (ch. 8).

b. Much planning and organizing precedes final food preparation. In addition, many measures are taken to maintain the quality of menu items from the time they are prepared until they are served to patients. Yet, the palatability of menu items and, in turn, their acceptability by patients depend upon proper and skillful preparation.

c. The preparation of good food requires food of good quality, adequate equipment and supplies, skilled personnel, proper supervision, and effective guides and controls. The basic guides and controls for food preparation are the cooks' worksheet, food code worksheet, personnel assignment schedule, and standardized recipes as recorded on recipe worksheets. Also, local policies and SOP's should be established for accomplishing the various activities of food production.

59. Guides for Preparation of Meals, Between Meal Nourishments, and Forced Fluids

a. Breakfast, Dinner, and Supper.

(1) All menu items listed on the food production worksheet except pastries and special breads are prepared in the main kitchen, beginning at pre-established times shown on recipe worksheets, personnel food production worksheet, and food production worksheet.

(2) Pastries and special breads are prepared by the pastry unit according to the food preparation worksheet for pastry and an established work schedule which permits these items to be in optimum condition when served.

(3) Vegetables and fruits and cooking and salad making are prepared in a central vegetable preparation room located in the subsistence supply section. Mess attendants are specifically assigned to this duty.

(4) Modified diet and regular diet food preparation are consolidated as much as practical, using recipes which have been tested and standardized for this purpose. This consolidation enhances the quality of modified diet food and minimizes the labor cost of specialized preparation.

b. Between-Meal Nourishments and Forced Fluids. These items are prepared at times specified by the chief, production and service branch. They are prepared according to the nourishment and forced fluid roster forwarded from the diet therapy branch; the recipes prescribed by the chief, production and service branch; the and the foodhandling precautions outlined in AR 40–5. Cooks should package nourishments and forced fluids in individual containers. This speeds distribution to the wards and aids the nursing service personnel in serving them to patients.

c. Night Meal. The night supper for duty personnel is prepared by the night cook as shown on the night supper menu. The use of highly qualified personnel in this operation is advantageous because they must work with little or no direct supervision. In addition, persons on night duty frequently have to make decisions and to fill emergency requests for complicated formulas for tube feedings or other modified diet foods. They may also be requested to prepare a meal for a patient admitted during the night or a modified diet meal for a patient who is to be on the way to another medical facility during meal time. They must be able to follow SOP's in other emergencies, such as electrical power failure. The night cook also prepares menu items for the daily menu that require advance preparation.

60. Basic Guides for Cooks

a. Organization of Work. Each cook's work changes daily as menu items change. Therefore, a

cook must be skilled in organizing his work quickly and effectively. When the cook reports for duty, he checks first with the hospital first cook and refers to the personnel food production worksheet for his specific duty assignments throughout the day. From the first cook and personnel food production worksheet he obtains information regarding the menu items he is to prepare, the appropriate work station, and the time when ingredients are to be delivered to him to begin preparation. With this essential information the cook proceeds in an orderly manner to perform the following duties:

(1) Check the recipe worksheet against the actual ingredients to make sure he has the ingredients required and assemble equipment and utensils needed to prepare the particular menu item. In a properly organized kitchen, equipment and utensils are stored in the work area where they are used most.

(2) Check equipment to be sure it is working properly. Ovens and other cooking units must be turned on at a time which will allow them to be at the right temperatures when they are needed.

(3) Prepare menu items exactly according to the standardized recipe. Defrosting, rehydrating, chilling, and garnishing are controlled by the preparation time assigned to each menu item by the hospital chief cook. Preparation must be so managed as to have each menu item at its peak of quality when it is served.

(4) Clean as he proceeds in the preparation process, using mobile carts for stacking used pots and pans and transporting them to the pot washing area.

(5) Observe strictly all safety precautions, including the following:

(*a*) Use dry hands to plug in electrical appliances.

(*b*) Always cut or slice food on a chopping board.

(*c*) Scrape and cut with a motion which takes the instrument away from the body.

(*d*) Keep spatulas and other utensils away from revolving beaters.

(*e*) Use dry pan holders to lift hot pans. A damp or wet cloth can cause a steam burn.

(6) Taste and evaluate the finished product and record on the recipe worksheet any suggested changes in the recipe and the actual preparation time required for the menu item completed.

(7) Return recipe worksheet to hospital chief cook.

b. Menu Items for Patient Tray and Dining Hall Service.

(1) Regardless of the amounts required, hot foods are prepared in small increments, thus keeping the hot assembly area and the cafeteria line continually supplied with hot foods of proper temperature and quality. A continuous cooking process can be assured through a periodic delivery of recipe ingredients from the central ingredient room. Recipe ingredients for one menu item necessary for 300 servings through a 1½-hour serving period may be delivered to the cook's work station in 100-serving quantities every 30 minutes.

(2) A hot food item required in a small quantity as for an uncommon modified diet, is prepared as close as possible to the starting time for the hot assembly activity. Individual servings of some items may be prepared and dished up in advance, chilled, and reheated in the microwave oven just before hot loading. The final cooking of some items may be done in the microwave oven as needed. If a microwave oven is not available, completely cooked items should be held until served in a heat-and-humidity controlled unit such as a bun warmer.

(3) Grilled menu items are prepared as needed and served directly from the grill to individual hot plates.

(4) Gravy of medium consistency is least affected by heat from the food cart. Thin gravy spreads over the plate and dries. Thick gravy forms a crust.

(5) Preparation of breakfast items from the carts differs from the normal procedure for preparing such items for the cafeteria line.

(*a*) Buttered toast is more palatable if it is buttered before it is placed in the heated compartment of the cart.

(*b*) Dry toast is more palatable when it is prepared from moist textured bread.

(*c*) Scrambled eggs maintain a better quality when cream is substituted for a portion of the milk prescribed in the recipe.

(*d*) Fried eggs are most acceptable when they are turned soon after being placed on the grill and cooked longer on the turned side. This prevents overcooking the protein on the side exposed to the dry heat of the cart and allows the second side to be cooked enough to withstand handling without breaking.

(*e*) Poached eggs are highly acceptable when 1 tablespoon of hot water is added to the eggs in the serving dish.

(*f*) Fried eggs can be successfully maintained in a cart by placing a drop of hot fat on the

yolk. This prevents the albumin, which covers the yolk, from becoming opaque.

(6) The total food quantity in a blended diet is prepared from individual patient portion sizes and blended in a 1-quart or a 1-gallon commercial food blender.

(7) Nourishments and forced fluids are prepared carefully by prescribed recipes and packaged according to procedures developed locally. Food handling precautions prescribed by AR 40–5 and outlined below must be strictly observed.

(*a*) Frozen foods which have been thawed are never refrozen.

(*b*) Ground meats, mayonnaise, eggs, cream cheese, deviled meats, and seafood are never used for box lunches or any other purpose unless they are kept refrigerated at all times.

(*c*) Sandwiches which are not consumed on the day of preparation are discarded.

(*d*) Milk mixtures and egg mixtures are prepared as close as possible to the time of consumption and are refrigerated until served.

(8) Cooked food on the dinner plate can be covered with plastic wrapping to prevent drying and chilling of food.

61. Basic Guides for Bakers

a. Organization of Work. The baker's work varies with the particular pastry products to be prepared, such as the pastry-type desserts used in the regular and the modified diets and the breads used in the modified diets. The baker must, therefore, be skilled in organizing his work to insure that the desired variety and quantities of bakery items are produced for the hour required. When the baker reports for duty, he first reads the food production worksheet. This worksheet indicates the items to be prepared for each meal, quantities required, numbers of recipes to be used and other cooking instruction, and delivery hours and destinations.

b. Preparation of Menu Items.

(1) The success or failure of a pastry product can result from slight variations in ingredients. The baker must observe differences in ingredients and use skill in their preparation and mixing to get the desired results.

(2) Technological improvements in the processing of ingredients often make it necessary or beneficial to modify the preparation processes. The baker must keep informed of these improvements and make needed modifications. Similarly, he must keep up with improvements in equipment, utensils, and baking pans.

62. Prevention of Waste and Misuse of Food

a. Prevention of waste and misuse of food requires the coordinated efforts of personnel in both the food service division and nursing service. Procedures for carrying out these activities should be developed locally. Patient tray service has made it easier to prevent misappropriation and misuse of food. However, close supervision still is necessary to assure that meals and between-meal nourishments are served to the patients for whom they are intended.

b. By patient interviews, dietary history records, diet instructions, selective menus, and patient satisfaction surveys, diet therapy personnel strive to provide patients with food they like and sizes of portions they can consume. Production and service personnel assemble the food for the patients strictly according to menus received from the diet therapy branch. They also survey patients' acceptability of food by checking trays on food carts after they are returned to the kitchen. When food left on a tray indicates the patient has not eaten or has eaten poorly, the menu is taken from the tray, noted with appropriate information, and forwarded to the diet therapy branch for investigation. Daily liaison between diet therapy and nursing service personnel enables them to discuss and correct any problems attributed to the nursing service. The problems and corrective actions are discussed in daily meetings of supervisor representatives from the production and service and diet therapy branches. After the meetings, appropriate action should be taken to prevent future waste or misuse of food.

Section II. TESTING, STANDARDIZING, AND COSTING OF RECIPES

63. General

All recipes used by the production and service branch are tested, standardized, and costed. These procedures insure production of menu items of an excellent quality, in the quantity needed, and at a cost within the established monetary limitations imposed by the authorized daily food allowance (AR 40–2 and TM 8–503). Each recipe is tested and standardized for use in preparation of a particular menu item for both regular and modified diets. The number of recipes tested during any one period should not be great enough to create a

workload exceeding the capabilities of the personnel. Emphasis should be placed on the testing of recipes for preparation of new menu items as they are introduced on the menu. New products also should be tested to determine whether or not they provide equal or greater quality with better use of personnel, equipment, and the food dollar. These important functions must be done according to local procedures. General guides for developing such procedures are provided in this section.

64. Responsibilities

a. The chief, production and service branch, in close coordination with diet therapy personnel, selects the regular and modified diet recipes for testing, standardization, and costing. The assembled data are evaluated to determine whether or not the recipes should become a part of the recipe files. Any standardized recipe found incomplete or inaccurate also is referred to the chief, production and service branch, for review as to the need for retesting.

b. Staff dietitians or dietetic interns, assisted by the hospital chief cook and cooks, are responsible for testing, standardizing, and costing all recipes; recording and evaluating data; and recommending disposition of the recipes to the chief, production and service branch.

c. Members of a selected taste panel, which may include persons from within and outside the food service division, are responsible for evaluating the food items after they have been produced satisfactorily.

65. Guides for Testing a Recipe

a. Determine the availability of all the ingredients required by the recipe. All ingredients used in recipes must be stocked in the subsistence section or be approved by the chief, production and service branch, for requisitioning.

b. Schedule the testing of the recipe when the services of the cooks can be used.

c. In accordance with local policy, arrange for assembly of the taste panel and for needed space in the dining hall to serve the panel.

d. Insure that accurate scales and standard measures of the required sizes are available. Test thermostatically-controlled temperatures in ovens or deep-fat fryers, if appropriate. Make sure any needed repairs are made before testing the recipe or arrange to make proper allowances.

e. Prepare a recipe worksheet for the quantity to be tested. A large quantity recipe should be tested with a yield of 25 portions. A household or family size recipe first should be tested with no change in yield; then if the product is desirable, the recipe should be retested for a yield of 25 portions. Use ingredients which will be used in large quantity, such as nonfat dry milk rather than fluid milk in bakery products. The following information should be recorded on the recipe worksheet for use in the production of the food item:

(1) Ingredients and the exact amounts required. The ingredients should be listed in the order in which they will be combined and in a way which makes them easily identified, such as "eggs, hard boiled" or "chocolate, baking, melted and cooled." Only standard abbreviations (app. C) may be used. Chemical formulas must not be used.

(2) AP (as purchased) and EP (edible portion) weights. If both weights are the same, only the EP weight should be recorded. The unit of weight or the measure count should correspond to the purchase unit.

(3) Measure count. This count is recorded when a volume measure or count is used instead of weight; *for example*, eggs, milk, or flavorings.

(4) Exact directions for preparing and combining the ingredients. The mixing speed and time, if appropriate, and pertinent precautions should be included.

(5) Temperature and length of time for cooking, baking, or refrigerating.

(6) Pan size, if appropriate, and the amount of mixture to be used per pan.

(7) Other information such as the name of the product, name of the person responsible for the testing process, total yield, number and size of portions, and source of the recipe.

f. Have the cooks produce the food item, following the directions provided in the recipe worksheets. If possible, a dietitian should supervise the production.

g. Following the production of the food item, enter on the recipe worksheet the labor hours required.

h. The taste panel members can score the product on a locally prepared score sheet. The food item may be served to the taste panel in standard or small portions. The item is not intended to be substituted for a meal. Panel members should score the product when it is prepared in a family size quantity and again when it is prepared in a larger quantity (*e* above). A short presentation

should be given at the taste panel by the tester to include reason for testing item, recipe source, average portion size, cost per serving, and calories per serving.

i. The product is evaluated for—

(1) Flavor, color, and consistency, using an average of the scores recorded by the taste panel

(2) Labor hours required to produce;

(3) Suitability for production in large quantities;

(4) Storage and deterioration aspects;

(5) Dispensing difficulties, if any; and

(6) Cost when the ingredients are expensive.

j. Record the evaluation data and recommendations on the recipe worksheet; then sign and forward the worksheet with the recipe score sheets attached to the chief, production and service branch, for review and approval or disapproval for standardization.

66. Guides for Costing a Recipe

Recipes should be costed for 25 servings before the taste panel, as cost per portion is an important consideration. Also, it may be possible to substitute less expensive ingredients before the recipe is tested. The recipe is costed on the recipe worksheet as follows:

a. Record the ingredient purchase unit and the cost per unit. This information is obtained from the current commissary price list or food service cost account records. All weights and measures of ingredients should be consistent with the purchase unit.

b. Calculate and record the total cost of each ingredient. *For example,* either multiply or divide, as appropriate, the cost per unit by the amount (weight or count) required.

c. Determine and record the total cost of the total yield by adding the costs of all the ingredients.

d. Determine and record the portion cost by dividing the total cost by the total yield.

67. Guides for Standardizing a Recipe

a. After a recipe is tested, evaluated, and approved, it is standardized for the exact yield of 100 servings and modified diet recipes are standardized for yields of 10, 25, and 50 servings. Pastry recipes are standardized by size, weight, count, or volume of the finished product, such as three 10-inch pies.

b. Calculations for converting the amounts of individual ingredients delineated on the recipe worksheet to the amounts required for the large yields must be made by reliable formulas and with absolute accuracy. If possible, the recipe should be retested after it is standardized. The rate of increase for all ingredients may not be the same. *For example,* the amount of flour, salt, and pepper flouring mixture may not need to be increased for 1,000 servings as much as the meat or other items floured would increase.

c. Standardized recipe data are recorded on recipe cards. The DA Form 1827 (Recipe Card) is then forwarded to the appropriate offices in the production and service branch to be transferred to a recipe worksheet and become part of the recipe worksheet files.

d. The recipe card is filed in the office of the chief, production and service branch, with the other cost study and control records.

Section III. STUDIES OF FOOD YIELDS AND COSTS BY PORTION

68. General

a. The processing and cooking losses must be included in the calculation of quantities of food items needed to produce the specified menu items for a given number of persons. Studies of food items therefore are necessary to determine the yield in standard portions. The nature of the studies varies with the types and uses of food items. *For example,* a study to determine the number of medium portion wedges which can be obtained from a lemon varies greatly from the study necessary to determine the number of medium portions which can be obtained from 50 pounds of beef.

b. Costing food items per portion is another important aspect of these studies, especially when costing has not been part of the testing and standardization of recipes or when a recipe is not required in the preparation of menu items, as in lettuce and tomato salad and honeydew melon.

69. Guides for Conducting Study

a. Staff dietitians or dietetic interns, assisted by the hospital chief cook and cooks, are responsible for making studies to determine food yields and costs by portion.

b. Data required for the study of a particular

menu item can be obtained during normal operations.

c. Before the weight of the food item is determined, the weight of the pan or dish holding the item must be subtracted.

d. As the portions are dispensed one should be weighed occasionally to make sure the quantity for a medium portion is being maintained.

e. The number of portions served should be obtained by use of a ticker counter.

CHAPTER 6

MANAGEMENT OF MEAL SERVICES

Section I. GENERAL

70. Responsibility

The management of meal services for hospitalized patients is the combined responsibility of the production and service and diet therapy branches. This chapter discusses the responsibilities of the production and service branch in the management of meal services. The responsibilities of the diet therapy branch are discussed in TM 8-502.

71. Types of Meal Services

The two principal types of meal services provided for hospitalized patients are tray service for the bed patient and dining hall service for the ambulatory patient. Between-meal nourishments and forced fluids are also provided for both bed and ambulatory patients as prescribed or as required in the fulfillment of a prescribed diet. Night meals are provided for night duty personnel and for patients when necessary. For special meals such as those for holidays and picnics and diets for duty personnel, see chapter 8.

Section II. CENTRALIZED PATIENT TRAY SERVICE

72. General

No matter how carefully dietary treatment is planned to meet the needs of each patient or how well the food is prepared, the final determinants of dietary treatment effectiveness are the accuracy with which each patient's food is dispensed and the palatability of the food when it reaches the patient. For these reasons many preparations are made before each tray is served to bed patients and special procedures are carefully followed. The production and service branch is responsible for assembling food and loading food carts; delivering food carts to the wards; assembling trays on the ward; and returning food carts to the kitchen, checking trays for food left on them to obtain evaluation data, and cleaning the carts. Effective fulfillment of these responsibilities requires production and service personnel to maintain a cooperative, pleasant relationship with diet therapy personnel, nurses, physicians, and patients. All activities must be coordinated effectively to insure proper dietary treatment for each patient.

73. Space Requirements and Equipment

a. Tray service activities are performed in a central kitchen. Since tray assembly takes place at the same time as food is carried to the dining room for serving ambulatory patients, the chief of production and service should select an area where the least cross traffic will be created. Areas are needed for assembling both hot and cold foods, cleaning and storing food carts, and sanitizing and storing dishes.

b. All equipment should be mobile to conserve space and to facilitate cleaning operations. Mobile equipment permits use of area for the assembly of both cold and hot foods. Equipment requirements vary with the size of the hospital and the time required for maintenance service. The number of food carts needed depends upon the average number of trays served and the location of the wards. The proper grouping of wards when preparing the cart timing schedule insures full-time use of all food carts. Allowance must be made for maintenance and repair of the carts. The number of dish dispensers needed is based on the average number of each item used for tray service for one meal. The number of grills, toasters, food warmers, and tables required depends upon the average number of trays to be served and the use of the equipment for other than tray service assembly.

74. Basic Instruments Used in Tray Service Management

The instruments used by production and service personnel in the management of tray service are the food code worksheet; individual menus and tray identification tags; telephone diet order; cart

timing schedule; cart loading guide; write-in sheets; and early, late, and delayed tray roster. Except for the cart timing schedule and telephone diet order, these instruments are prepared in the diet therapy branch and delivered to or picked up by production and service personnel.

75. Food Code Worksheet

The Food Code Worksheets (DA Forms 2932, 2932–1, and 2932-2) serve as the authority for using specific foods in the assembly of trays for bed patients and as a guide for production of all food items.

76. Individual Menus and Tray Identification Tags

a. Individual menus (DA Forms 2900 through 2909) and Tray Identification Tags (DA Form 1831) are used in dispensing and serving food to the patients. When the production and service branch receives these menus and tags from the diet therapy branch, they have been assembled to aid in dispensing food, assembling trays, and loading trays into the food carts. The menu and tray identification tag for each patient are in a tray card holder. Holders are arranged for each ward, or for each food cart, on a tray in the sequence in which the patients' trays are to be loaded into the food cart. Individual menus are taken from the holders, used as orders in placing cold food on trays and hot food on plates, and kept with the hot plates to identify them. The tray identification tags, on which special entries besides identifying information may have been recorded, are placed as identification on the cold food tray. When hot and cold foods for each patient are assembled on the ward, the menu from beneath the hot plate and the tray tag from the cold tray are carefully matched by patient's name and type of diet. Just before the tray is served, the menu is placed on the tray, and the tag is placed on the top of the cart in the order of service. Later, all tags are returned to the diet therapy branch to be reassembled for use with the next meal. To aid in reassembly, tags must be kept clean and in the order in which trays were served.

b. The individual menus may be of four types: regular selective menu, dietary menu plan, special written menu, and selective modified diet menu.

(1) The regular selective menu and the selective modified menu are written locally to give bed patients their choice of foods and portions, thus increasing satisfaction and reducing food waste. Selective diet modified menus also aid in teaching patients on modified diets how to select foods which are allowed.

(2) Each dietary menu plan meets the requirements of a particular dietary regimen. The types of foods permitted are identified on the dietary menu plan by descriptive nomenclature and codes, and match corresponding lines on the diet code worksheet. A dietary menu plan has been published for each modified diet discussed in TM 8–500. Each plan is identified by DA Form number and can be requisitioned through normal publication channels. For details about dietary menu plans, see TM 8–502.

(3) The written menu is calculated locally to fulfill a dietary regimen for which a dietary menu plan has not been published. Written menus also include those for test diets, blended diets, tube feedings, renal diets, and special formulas.

c. The tray identification tag provides useful data as well as necessary identification. The chiefs of the production and service and diet therapy branches determine what identification and terms will be entered by diet therapy personnel as appropriate on the tag. For more about tray identification tags, see TM 8–502.

77. Telephone Diet Order

a. DA Form 2927 (Telephone Diet Order) is used to record all telephone messages received from the diet therapy branch regarding patient trays or nourishments. It also serves as the authority for making changes in patient trays or diets after the tray tags for the particular ward have been delivered to the patient tray service area. A copy is maintained in both diet therapy and production and service branches. All messages concerning patient trays received by the production and service branch should be from the diet therapy branch; calls from nursing service or food service personnel on the wards should not be made directly to the patient tray service area.

b. The telephone diet orders should be reviewed daily by the chief, production and service branch, and the chief, diet therapy branch, to detect problem areas. Telephone requests are justified when the following conditions arise after the ward diet rosters are collected from the nursing stations by diet therapy personnel or after scheduled telephone changes have been made: a new patient is admitted; a patient is discharged; a diet is changed from liquid to solid or vice versa; a new diet for a diabetic patient is ordered; or a diet is ordered prepared, held, or canceled for diagnostic or treatment purposes. Other changes should be entered by the nursing service personnel on the ward diet roster or telephoned for the next meal.

78. Tray Serving Schedule

a. The tray serving schedule, developed by the diet therapy branch with the nursing service and production and service branch, is used by the production and service personnel to insure that patients on the wards receive their trays at the time determined to be most satisfactory for the patients, medical staff, nursing personnel, and food service division. The schedule must be one which best meets the needs of all wards, considering the tray serving periods desired, the dinner census on each ward, the number of food carts available, and the number of persons available to serve. Food service division personnel can be used best when the schedule provides staggered tray serving periods in a group of adjacent wards.

b. The tray serving schedule may be a simple one, providing only the time when the patients on each ward are to be served. In large hospitals, however, more information is required to insure timely loading of the carts and serving of the trays.

79. Cart Loading Guide

A DA Form 2929 (Cart Loading Guide) prepared in the diet therapy branch accompanies each tray of menus and identification tags to the production and service branch. The cart loading guide may be used in loading such bulk food as coffee, soup, and ice cream and such items as cups, glasses, and bowls onto the food carts. If overloading of the cart is necessary, the number of trays to be loaded above the capacity of the cart is indicated on the guide. A cart is overloaded by inserting two trays in one of the slides and placing a double order of cold food on the two nested trays. If more than one ward is to be served from the same cart, the sequence for serving is indicated on the guide. Patients requiring special attention are noted by name on the cart loading guide.

80. Early, Late, or Delayed Tray Roster

The DA Form 2926 (Early, Late, or Delayed Tray Roster) is used in serving meals to patients who cannot eat at the regularly scheduled meal hours. This service is costly in man-hours required to accomplish it but is necessary for the proper dietetic treatment of patients. The time at which each tray is served must be recorded on the roster in the column provided for this information.

a. Early Tray. An early tray is ordered for a patient who must be served before the time the food cart is scheduled to arrive on the ward. The tray is delivered to the ward at the time designated or as soon as possible after the ward nurse calls for it.

b. Delayed Tray. A delayed tray is ordered for a patient who will be ready to eat within 30 minutes after the other trays have been served on the ward. Delayed trays are loaded in the food cart first. If the server is not present when the patients are ready for the delayed trays, the nursing service personnel remove them from the cart and serve the patients. If the trays have not been served by the time the cart is removed from the ward, they must be returned to the kitchen.

c. Late Tray. A late tray is ordered for a patient whose medical treatment requires him to be served after the time limit for a delayed tray. The meal is delivered to the ward at the time designated or as soon as possible after it is requested. A full meal is always served on a late tray for a diabetic patient and specially written diet patient. After 1000 hours for breakfast, 1330 hours for dinner, and 1830 hours for supper, adjustments may be made in the types of food served most other patients. The local SOP should state whether a complete or a partial meal will be served on late trays. The cutoff hours when a *late* tray becomes an *early* tray for the next meal also should be stated. The night cook will prepare all foods required for patient feeding after the normal duty operation is finished.

Section III. TRAY ASSEMBLY, CART LOADING, TRAY DELIVERY AND RETURN

81. Preparation for Tray Assembly and Cart Loading

The following preparations should be made before the assembly of trays and loading of carts:

a. Cold food items are placed in refrigerators for chilling to the proper temperature before tray assembly. Food carts never should be used for chilling food. Carts are only designed to maintain the temperature of food, not change it.

b. Before each meal, designated personnel plug carts into electrical outlets and set the hot and cold temperature dials on carts at the required positions for heating and chilling. It takes food carts at least 2 hours to reach the desired temper-

atures. Food carts should remain plugged into electrical outlets except when they are moved from the parking area into the loading area.

c. Individual salads and desserts are portioned, beverages poured, condiments, dishes, and serving utensils assembled, and mats placed on trays. Individual portion packets of jelly, mustard, catsup, jam, sugar, salt, pepper, salad dressings, cookies, and crackers should be used as they are sanitary, neat, economical, and save time in food assembly. A glassine-bagged water glass may be placed on each patient's breakfast tray for use as a bedside water glass. A note may be stapled to the glassine bag, explaining the purpose of the glass and suggesting soiled glasses be returned to the kitchen on the breakfast tray.

d. At a time determined locally, patient tray service personnel should pick up from the diet therapy branch the trays containing patients' checked menus, tray identification tags, and cart loading guides. The pickup time schedule should allow for an accuracy check to confirm the following:

(1) Correct date and meal are recorded.

(2) Total number of menus and tags is identical to the recorded number on the cart loading guide for trays and overload trays to be served.

(3) Ward number on the cart loading guide agrees with ward numbers on tray identification tags.

(4) Name, ward number, and type of diet are recorded identically on both menu and tray identification tag for each patient.

(5) Special markings such as "Isolation" are entered on tray identification tags.

(6) Cart loading guides show the quantity of each bulk item required, serving time, and signature of the person who prepared the guide in the diet therapy branch.

82. Assembly of Trays and Loading of Food Carts

a. General.

(1) The assembly and loading of cold food items on patient trays should precede the hot food assembly. Properly chilled cold food items will keep satisfactorily in the cold compartments of the food carts as long as 1 hour to 1½ hours. Two to 5 minutes are required to load one cart with the cold food and 2 to 4 minutes to load the hot food. Food carts should be plugged into electrical outlets throughout the cold and hot food assembly

Table 1. Optimum Food Serving Temperatures

Food	Food temperatures in heated wells	Food temperatures in heated compartments	Food temperatures in cold compartments
Coffee	80°– 85° C 176°–185° F		
Hot water for tea	85°– 90° C 185°–194° F		
Broth	100° C 212° F		
Cream soup	75°– 80° C 167°–176° F		
Hot cereal	70°– 75° C 158°–167° F		
Meats, potatoes, vegetables, hot breads	----------	60°– 70° C 140°–158° F	
Hotcakes, french toast	----------	60°– 65° C 140°–149° F	
Toast	----------	40°– 45° C 104°–113° F	
Fried eggs	----------	70°– 75° C 158°–167° F	
Scrambled, poached eggs	----------	65°– 70° C 149°–158° F	
Bacon, sliced ham	----------	50°– 55° C 122°–131° F	
Milk	----------	----------	10° C 50° F
Juices	----------	----------	10°– 15° C 50°– 59° F
Butter	----------	----------	15°– 20° C 59°– 68° F

and loading operation. Hot food will deteriorate rapidly after 45 minutes in a food cart.

(2) Care must be taken to maintain the proper temperature after cold and hot food items are loaded into the cart. The temperature of the cold compartments should be checked periodically with a thermometer. The dials controlling the hot compartments should be checked for proper setting. The hot foods should be checked with a thermometer when they are dispensed and served. Table 1 shows optimum temperature for various food when served.

b. Assembly of Cold Food on Trays and Loading of Trays. Cold food assembly is the process of placing napkins, eating utensils, condiments, and cold food items on the individual trays and loading the trays into the chilled compartments of the carts.

(1) The best arrangement for cold food assembly is to have the trays move on a mechanical conveyor belt in front of tray service attendants with the cold food and other items arranged on tables or shelves within easy reach above the conveyor belt. As the belt moves along, the first service attendant places trays on the belt, withdraws individual menus in the prescribed order from the tray card holders, and places the menus and card holders containing the tags on the trays. As trays move in front of other tray service attendants, they read a certain portion of each menu and place on each tray the items for which they are responsible. Glasses, cups, dishes, or colored tabs can be used as codes to show food items are to be added during final assembly of the tray on the ward. *For example,* a dessert dish can be used to indicate ice cream or sherbet is to be added. The tray service supervisor or leader, who is stationed at the end of the belt, removes each tray from the belt, checks to be sure the correct items have been placed on the tray. The loader removes the menu and places the tray containing the cold items and tray identification tag in the cold compartment of the cart, beginning with the first slide and continuing downward. A service tray should be included in each cart and will be the last or the first tray to be cold-loaded. This tray includes extra coffee cups, glasses, napkins, condiments, flatware, and straws. As menus are taken from trays, the supervisor stacks them face up so that, for example, the menu for the tray in the first slide is at the bottom of the stack. After the cart is loaded with the correct number of trays, the supervisor clips the stack of menus together and places them on top of the cart for use in hot food plate assembly. The cart loading guide is placed on top of the cart, which is moved to a park location and plugged into an outlet.

(2) If a mechanical conveyor belt system cannot be set up, a satisfactory assembly arrangement can be made by using several tables with drawers and tray-shelf trucks. In this arrangement each tray remains relatively stationary while cold food items are placed on it. One tray service attendant may call the items rather than each person reading the menu.

c. Assembly of Hot Food on Plates and Loading of Plates. Hot food assembly is the process of placing the right portions of prescribed hot food items on plates and loading the plates into the heated compartments of the cart. Plates should be heated to the average temperature of food items to be placed on them.

(1) The best arrangement for hot food assembly is to have the hot food items for both regular and modified diets in food warmers with grills, toaster, and heated food cart conveniently located nearby. Each food item is called while the cooks serve the food on plates. The supervisor or another designated employee checks the accuracy of each plate against the menu and places plate and menu in the drawers of the heated compartments.

(2) The plates of hot food are placed in the heated drawers, beginning at the sixth drawer of the cart. The plates are loaded from the back of each drawer to the front of it, with the first plate on the right side. Loading the cart in this order positions the plates so that each plate matches the appropriate tray when unloading both the plates and the trays from top to bottom and the plates from front to back of the drawers. Also, loading drawers from back to front and unloading them from front to back makes it unnecessary for a person to reach over the plates. Seven drawers are on the hot side of the food cart. The bottom drawer is used for special soups and items that cannot be placed on the plate. The hot loader learns how many plates to put into each drawer by listening to the announced number of trays on the cart. Three plates per drawer are loaded if there are 18 or less trays. When there are more than 18 trays, four plates are loaded per drawer. For menus which do not require a hot plate, i.e. liquid diet, a plate should accompany the menu into the drawer to identify the liquid diet when served.

d. Bulk Loading. The last step in the assembly of food is to load the bulk food and serving items as indicated on the cart loading guide for each cart. Ice cream and sherbet should be packed in a suitably insulated container if the cart is not equipped to keep them frozen. Ladles and tongs

should be wrapped if space for them in the cart is not available.

e. Assembly for Use With Microwave Oven. Trays may be assembled in a continuous operation from cold food through cooked food and transported in food carts with chill and heat compartments. Cooked meat, potato, and vegetables are placed on the dinner plate and covered with plastic wrapping.

NOTE

To avoid electrical damage, never use aluminum foil or any metal container in a microwave oven.)

The dinner plate is placed on the tray and put into the chill side of the cart. Heated drawers are used to carry individual beverage containers, gravy, and serving utensils. When foods to be reheated are assembled on the plate, they require enough juice over vegetables and broth gravy over meat to permit optimum conditions for reheating on the ward. In placing cooked food on the plate, the cook must consider moisture, consistency, and density of food and number of items on the plate. Microwaves do not penetrate dry, thick food items satisfactorily. Slices of meat should not overlap on the plate. Cheese sandwiches should not be stacked on the plate. When placing spaghetti, tunafish casserole, chow mein, lasagna, and other dense items on the plate, the cook should penetrate the mass with a spoon to permit even exposure to microwaves during reheating. One teaspoon of water should be added to the surface of meat substitutes that are dense mixtures which may form a dry crust.

83. Delivery of Food Carts to Wards

The tray service attendant is responsible for checking the cart loading guide to determine if the required number of trays and bulk items have been loaded. Each cart is checked out to an attendant who transports it to the ward as indicated on the cart timing schedule. Each attendant, before leaving the area with the cart, must report to the dispatcher who notes on the cart timing schedule the time the cart departed for the ward and checks the cart for complete loading.

84. Assembly and Serving of Trays on Wards

a. When the tray service attendant arrives on the ward, he parks the food cart in the area designated for this purpose and plugs the electrical cord of the cart into the outlet. The particular parking area is jointly determined by nursing service and food service personnel, based upon the convenience to the majority of the patients and nearness to an electrical outlet. After connecting the cart, the attendant contacts the nurse or ward master to find out if the patients are ready to receive the trays.

b. The tray service attendant places the plate of hot food on the tray and cross-checks food items with the menu for completeness. Nursing service personnel deliver the tray to the patient. The diet therapy personnel are also present to collect evaluation data. In assembling the meal, the attendant pulls one tray at a time halfway out of the cold compartment, starting with the top one below the delayed trays; obtains the appropriate plate of hot food with the menu from the heated compartment; serves the hot and cold foods from the cart wells as ordered on the menu; completes assembly of the tray; and removes the tray identification tag. He then checks the tray against the menu and hands it to the person who is to deliver the tray to the patient. For special tray service for diabetic, pediatric, psychiatric, and isolated patients and patients on blended diet, see paragraph 86.

c. When food is to be reheated in the microwave oven, production and service personnel should develop specific instructions for reheating all cooked menu items. Each microwave oven has different time-heat ratios. The patient tray service dietitian should determine for each meal the time and heat for the server to use in reheating food on the ward. The time-temperature ratio is related directly to the food item. Written SOP's should delineate each step of the reheat process. Some factors to consider are arrival of food cart on the ward, preparing equipment to serve, positioning the microwave oven, notifying nursing service personnel, placing plates in the oven cavity, and sequence for placing beverage and ice cream on the tray. Microwave ovens never should be turned on without food in the oven cavity. Food must have moisture. The plastic wrapper must be removed from fried eggs, yolk up, before flashing (reheating). Syrup must be uncovered before flashing. Mashed potatoes should be indented from the top and butter added. Poaching of eggs can be done on the ward as follows: Raw eggs are sent to the ward, two tablespoons of water are added to the container, an egg is dropped into the container, covered with plastic wrap, and flashed 15 seconds in the oven cavity.

d. After all trays have been delivered, the attendant asks if all patients have been served and if additional items are needed. Requested items are supplied from the food cart and, when necessary, the attendant calls the diet therapy branch to have additional items delivered to the ward. He

leaves the unloaded cart on the ward and returns to the kitchen to deliver another cart or goes to another ward to assemble food from a second cart. Before leaving the cart, he makes sure the doors on both compartments are closed. Doors should be closed except when trays are being assembled or returned to the cart.

85. Return and Cleaning of Food Carts

a. After an acceptable meal period, nursing personnel return soiled trays to carts and the tray service attendant returns to the ward to move the cart to the kitchen. Before leaving the ward, the attendant makes sure all soiled trays have been returned to the cart by checking the number of trays against the number entered on the cart loading guide. He also makes sure all soiled dishes, glasses, and pitchers used for between-meal nourishments, forced fluids, and water are placed on the cart.

b. The attendant returns the cart to the centralized dishwashing area, where everything is removed from the cart. The menus of patients who have not eaten their food or who have eaten poorly are removed. Comments are entered on the menus and they are sent to the diet therapy branch.

c. The cart is completely emptied. The attendant moves it to the cart washing area where it is thoroughly cleaned. Spigots of the wells are dismantled for cleaning and tray racks and drawers removed. The supervisor or leader inspects the washed carts for cleanliness.

86. Special Procedures for Centralized Patient Tray Service

a. Changes in Menus and Delivery of Trays. A written procedure should be developed locally to explain how late tray changes will be accomplished. Ward personnel telephone changes to the diet therapy branch after the checked menus have been delivered to the patient tray service area. The exact steps to be taken in this procedure depend upon how far the assembly of trays, hot plates, bulk foods, and service items for the ward has progressed when the change is received in the tray assembly area. General guides for diet therapy personnel for making changes are as follows:

(1) *Change in diet.* A menu pattern reflecting the new diet order with patient's name and ward number recorded replaces the old menu. The tray identification tag is changed to reflect the new diet order. If assembly according to the old menu has been started or finished, the tray and hot plate as necessary are withdrawn and newly assembled ones placed in their positions. Bulk food and service items on the cart loading guide are changed as necessary.

(2) *Request for additional tray.* A menu and a tray identification tag are prepared from the instructions recorded on the telephone diet order and placed with other menus for that ward. If assembly of food for the ward has been completed, a tray and a hot plate are assembled and placed in the cart. The cart loading guide is changed to show one more tray and additional quantities of bulk food and service items as required. If the cart for that ward has left the kitchen, a tray is assembled to include all items required. The hot plate is covered with a heated meal cover or plastic wrap and the entire tray is covered with brown wrapping paper. The tray is handcarried to the ward. The time when this tray leaves the kitchen is recorded on the telephone diet order.

(3) *Cancellation of tray.* If assembly of the tray has not been started, the menu and tag are withdrawn; otherwise the tray and the hot plate, if completed, are withdrawn from the cart. The cart loading guide is changed to show one less tray. The quantities of bulk food and service items are changed as necessary.

b. Assembly and Loading of Blended Diets. A blended diet is one in which all items on a patient's individual menu are placed in a machine and pulverized to produce a liquid mixture in the total cubic centimeters specified. A locally established procedure should be followed to insure accuracy in preparing and serving the blended diets and avoid delays during the tray assembly process.

c. Assembly and Delivery of Diabetic Diets. Patients on diabetic diets must receive the exact amounts and types of food specified on their menus by a dietitian in the diet therapy branch. The tray service attendants must be provided specific procedures to follow in the assembly of diabetic trays. The diet therapy branch places a special marking on the menus and tray identification tags for diabetic diets as a special signal to tray service attendants. The meat portion size is always indicated on the menu by gram weight. The portion sizes of most other foods are specified by weight, measure, or number. A special method is used in determining the weight of meat, such as chicken and duck which contain bone. The weight of meat which contains bone is doubled, for example, 180 grams of chicken with bone is required to yield a 90-gram edible portion.

d. Tray Service for Pediatric Patients. Procedures for providing tray service for pediatric patients should be developed in close coodination

with personnel of the diet therapy branch and the nursing service. Production and service personnel can do much to facilitate the nursing personnel's work of serving meals to infants and children. The procedure should provide the following information as it pertains to the various age groups:

(1) Types of serving dishes. Bowls may be preferred to plates. Plastic dishes may be required as a substitute for china.

(2) Types of eating utensils. A spoon may be the only eating utensil desired.

(3) Whether condiments are to be provided in bulk amounts or individual packets.

(4) Extent to which various condiments should be eliminated from menu items.

(5) Sizes of portions of the various types of menu items.

(6) Whether or not a selective menu should be provided the 7- to 12-year age group.

(7) Whether commercially packed baby food is to be served and, if so, the serving specifications (original container or dish and temperature of the food).

(8) Precutting specifications for meat (grind, mince, chop, and finger cuts) and instructions for buttering and cutting bread.

(9) Meal hours and the time for serving desserts after main course.

(10) Special requirements pertaining to tray service for children with communicable diseases.

(11) Requirements about meals to be consumed by infants and children en route to another hospital.

(12) Use of bedside water pitchers and tumblers.

e. Tray Service for Psychiatric Patients. Ordinarily psychiatric patients are served meals in the dining hall. If a tray is to be delivered to the ward for a psychiatric patient, it should be assembled according to special instructions provided by the psychiatric nurse through the diet therapy branch.

f. Other Tray Service. Perfect trays or trays with special identification are required for several categories of patients.

(1) A perfect tray is required for the patient on a renal diet, which is a calculated diet written from a physician's prescription. Persons who prepare this food and serve must be alerted to the importance of accuracy in serving a perfect tray. The renal diet may be written on a special modification mat, in one original and two carbon copies, by the dietitian from diet therapy branch. One carbon copy is marked "HOT," the other "COLD." Cooks will use this to prepare the food. The prescription should be written on each menu, and diet therapy personnel may place a special marking on the menu and tray identification card.

(2) Patients who are to have calorie counts or other nutrient intakes recorded may have special marking on their menus and tray identification cards to alert the cook and serving personnel to the added requirement.

(3) Because of illness or personality, other patients may have their menus and tray identification cards specially marked to remind production and service personnel to use extra precautions when assembling and serving their trays.

g. Tray Service for Patients on Isolation Wards. This tray service varies greatly from tray service for other patients. Isolation food service can use paper, plastic, or other disposable materials. The application of precautionary measures by the personnel and adherence to procedure are mandatory. This service requires the closely integrated efforts of personnel in nursing service and the production and service and diet therapy branches. The diet therapy branch should stamp the word "Isolation" on all menus, tray identification tags, nourishment lids, paper bags, and labels to be used in serving patients on isolation wards. Production and service personnel assembly trays, using paper or plastic dishes, flatware and trays, and deliver food carts to the wards and park them outside the isolation area. Food service personnel assemble the food on the trays and hand them to nursing service personnel who deliver all meals and nourishments to patients. Nursing service personnel will discard liquid and solid waste according to local procedures. The patient's tray and all contents may be placed in a kraft (strong paper) bag, sealed; plastic bag, sealed; or a designated garbage can by nursing service personnel for disposal in the incinerator by designated personnel other than food service personnel. China and glassware may be desired for serving long-term isolation patients. This requires a complex system of presoaking in a disinfecting solution and washing in an area before dishes, trays, and flatware are returned to the central kitchen. Disinfected dishes and utensils may be returned on the food cart at the following meal. Breakfast dishes are returned to the central kitchen on the noon food truck. All dishes, trays, and utensils then are processed through the dish machine as usual.

Section IV. DINING HALL SERVICE FOR AMBULATORY PATIENTS

87. General

a. Dining hall service is provided for ambulatory patients on regular and modified diets and for other personnel authorized to subsist in the hospital dining hall. Production and service personnel are responsible for providing this service, which entails setting up regular and modified diet cafeteria lines, dispensing hot and cold menu items, and evaluating dining hall service.

b. A short order menu may be added to the noon meal cafeteria service. This menu may be cold or hot sandwiches, hamburgers, soup, salads, beverages, fruits, and ice cream. The short order menu is an addition to the full menu and offers a choice to the patron not wishing to consume an entire meal. The established meal price remains the same for both menus.

c. Patients should be scheduled for dining hall service as much as possible. It costs less to serve them in the dining hall than on the ward. Personnel of the diet therapy and production and service branches and nursing service should establish a mutually satisfactory method for serving ambulatory orthopedic patients and others who cannot wait in line or carry trays. A modified family style service, the buddy system, or the carrying of trays by mess attendants are satisfactory procedures.

d. Attire of ambulatory patients is governed by local hospital regulations. Recommendations for proper attire should be made by the chief of food service to the executive officer or chief of administrative services. Infractions of local policy should be reported to the nursing service.

88. Dining Hall Meal Periods

a. Dining hall meal periods for breakfast, dinner, and supper are established by the chief, food service division, based upon recommendations made by the chiefs of the production and service and diet therapy branches in close coordination with nursing service personnel. Patients should eat at generally accepted meal hours: 0800, 1200, 1800. Time allowed for meals for patients on the regular and modified diets should be the minimum needed to serve them, as menu items can be kept at high quality only a limited time.

b. Early, late, and delayed meals are served in the dining hall for ambulatory patients who give the food service representative a prescription form signed by the ward nurse. If a patient does not have a slip, the food service representative calls his ward for permission to feed him. Since early, delayed, and late meals are generally served to patients requiring laboratory tests, the serving routines are ordinarily established only for breakfast. A full breakfast meal is served to the patient in the dining hall up to a predetermined, locally established hour. Breakfast foods required after that time are usually limited to juice, toast, cold cereal, coffee, and milk. A full meal always is served to a diabetic patient exactly as indicated on his menu. The late breakfast period is terminated at a locally determined hour.

89. Setting Up Cafeteria Line

Either the hospital chief cook or the first cook assigns personnel to prepare the regular cafeteria line according to local procedure.

90. Dispensing Hot Menu Items

a. Regular Diet Cafeteria Line. Food service personnel are assigned to serve all hot food items from the cafeteria serving line. Patrons should indicate to the server the item wanted. Portion sizes will be determined by the production and service branch. A patron may want more or less than the standard serving. Meat items usually are critical. The serving of larger than standard portions of meat will be decided locally. The serving of second food portions and conduct of personnel passing through the cafeteria line will be monitored by production and service branch.

b. Modified Diet Cafeteria Line. Preparation and service of modified diet food to ambulatory patients is the responsibility of personnel assigned to the patient tray service unit. A designated employee from the cold assembly area assembles all cold menu items in proper quantities and arranges them attractively on the cafeteria line. Cold items from the assembly of patient trays may be used for the ambulatory modified diet line if scheduling of meal hours permits. A second employee from the patient tray service unit is assigned to assemble and serve the hot menu items. Code numbers designating the menu items are placed next to items on the serving counter to help patients select food appropriate for their diet.

c. Menu Planning. Preparing a menu plan for the ambulatory patient on a modified diet and instructing each patient before he is given dining hall privileges is the responsibility of the diet therapy branch. The menu plans may be arranged alphabetically by ward and given to the headcount representative before each meal or placed in a rack designed for this purpose. The patient obtains his diet plan from the headcount representa-

tive or from the diet plan rack, and passes down the serving line, selecting cold foods for his diet on a self-service basis. The patient gives his menu plan to the food service employee serving the hot menu items. The cook serves the items designated by the menu plan unless the patient requests a suitable substitution. The patient's complete tray is checked by a representative of the production and service branch. The menu is returned to the headcount representative for tally and may be put back into the permanent rack and reused at successive meals.

91. Dining Hall Service for Psychiatric Patients

Patients from the psychiatric section are accompanied to the dining hall by neuropsychiatric specialists. These specialists are responsible for providing the patients whatever assistance they need and for maintaining discipline and order among them.

92. Accounting for Meals Served in Dining Hall

Personnel assigned to the office of the chief, food service division, account for all meals served in the dining hall in accordance with AR 40–2.

93. Evaluating Dining Hall Service

a. The evaluation of dining hall service for ambulatory patients is a combined responsibility of the supervisory personnel of both production and service and diet therapy branches. An evaluation should be made often to identify areas where improvements are needed. The two main things to evaluate are acceptability of menu items and the effectiveness with which the patrons receive their meals.

b. Dietitians from the diet therapy branch arrange to be present in the dining hall during meal periods on specified days to answer questions as the patients go through the modified diet cafeteria line and to see if they are eating the meals planned for them. Production and service personnel make daily meal checks and observations to identify any discrepancies in the preparation and serving of foods and to note patrons' acceptability of the menu items. Formal and informal patron surveys similar to those for ward patients can be effective in determining acceptability of the dining hall meals and service in general. The chiefs of the production and service and diet therapy branches should taste the various menu items regularly to determine whether or not they are of optimum quality. They should also communicate daily and readily solve those problems for which both are responsible.

Section V. NOURISHMENTS AND FORCED FLUIDS FOR BED PATIENTS AND AMBULATORY PATIENTS

94. Delivery of Nourishments and Forced Fluids

Individual nourishments and forced fluids for bed patients and ambulatory patients on modified diets are prepared and delivered to the wards three times a day by production and service personnel. The DA Form 2928 (Nourishment and Forced Fluid Roster) prepared in the diet therapy branch serves as the order and delivery guide. Diet therapy personnel also record the necessary identification on paper bags and other containers, cups, labels, and tags used in packaging items for delivery.

95. Collection of Out-of-Date Nourishments and Forced Fluids

Nourishments are ordered daily and should not accumulate in ward refrigerators. Personnel of the diet therapy branch check ward refrigerators daily and adjust needed quantities to the daily consumption. Both diet therapy and production and service personnel should be familiar with milk codes to assure that milk is not allowed to remain in ward refrigerators more than 48 hours.

CHAPTER 7

SANITATION, MAINTENANCE, AND INSPECTION

96. General

High quality food is not only nutritious and palatable but also clean and safe to eat. Production of high quality food depends largely upon the effectiveness with which sanitation, maintenance, and inspection are integrated into each area of hospital food service operations. The chief, production and service branch, is responsible for establishing production and service procedures which encompass high standards of sanitation and maintenance and for insuring the use of inspection methods which aid in identifying and correcting discrepancies and evaluating the effectiveness of operating procedures. All supervisors in the production and service branch should understand that sanitation and maintenance of facilities, equipment, and supplies are vital parts of their responsibilities and they must train subordinates in sanitation and maintenance measures and assure the training is applied.

97. Personal Sanitation

A pre-employment physical examination is required by AR 40–5. Local commands or hospitals may establish additional requirements. The hospital food service division standards of personal hygiene for their employees should be published as a division operating procedure. The hospital civilian personnel officer and local union steward should be consulted. Personal sanitation usually includes personal appearance and hygiene, on-the-job sanitation, and health measures described below (para 98).

98. Personal Appearance and Hygiene

a. Personal appearance includes wearing clean and appropriate clothing for the task to be performed. Employees should wear clean, white jackets, trousers, dresses, or aprons that are neatly pressed and changed daily. Low-heeled oxfords are appropriate shoes for wear in the kitchens. Open-toed sandals are a personnel safety hazard and will not meet hygiene standards. Women employees should wear stockings without runs. Anklets and bare legs are not acceptable.

b. Persons working in food areas and serving patients should present a well-groomed appearance. Women should have conservative, attractive hair styles and keep their hair confined in a hair net. Men should keep their hair trimmed, clean, and covered with a white cap. Wedding and engagement rings and wrist watches are the only jewelry appropriate for wearing in food activity and patient care areas. Women employees should use cosmetics with restraint and to enhance personal appearance. Perfume and cologne are not recommended because their odors can offend patients. Nail polish is not worn because it can chip, fall into food, and be a health hazard.

c. Sunglasses are hazardous when worn inside working areas. Employees requiring dark lenses in their glasses should have a prescription describing the eye condition and the need for sunglasses.

d. Employees are expected to practice personal hygiene, which includes daily bathing, using perspiration deodorants, changing daily to clean underclothing, brushing teeth, and keeping fingernails clean and short. Men should be freshly shaved when they report for duty. Closely trimmed mustaches are acceptable.

99. On-the-Job Sanitation Habits

a. Personnel should wash hands with soap and water often while working and always before leaving toilet rooms. When one sneezes or coughs he should cover his nose and mouth, wash hands immediately, and discard disposable tissues. Hair should be combed only in restrooms, locker rooms, or lounges. Chewing of gum and tobacco or smoking in food preparation or serving areas cannot be permitted. Smoking is allowed only in prescribed areas and hands are washed after smoking.

b. Food should not be touched by hand but with the proper utensils designed for handling food. Flatware and cups are touched by the handle. Glasses are touched on the bottom. Hands should not touch the part of the utensil that goes into an individual's mouth. Dishes are held in the palm of the hand when food is being placed on them. Dishes in stacks should be carried on dish carts, not cradled in a person's arm.

c. Food is eaten only in dining rooms and at meal hours. Eating or tasting in the kitchen area is not permitted. Cooks and others whose assigned duties require them to taste food do so according to the prescribed method.

100. Health Measures

The supervisor is told immediately of any accident or injury occurring on duty, any illness or incapacity to work, and any cut or sore even if it is not considered incapacitating. Annual food handler examinations, inoculations, and other treatments or tests may be ordered by a medical officer in accordance with local requirements.

101. Sanitation and Maintenance of Equipment

a. General. Sanitation and maintenance of the many pieces of equipment used in the production and service branch is vital to the effectiveness of the operations. Failure to clean and care for equipment after use can contaminate food or result in an inferior product the next time it is used. Such a failure can also cause equipment to break down or function poorly, requiring more extensive, costly maintenance or repair. The procedure for the care of each piece of equipment may be combined with the procedure covering its operation. The procedure must state clearly what, how, and when sanitizing and maintenance are done. Operations not required daily should be written as a separate procedure. Equipment must be scheduled routinely for medical maintenance in the supply and service division shops. Lubrication and replacement of parts are examples of such maintenance.

b. Food Carts. Sanitation and maintenance of food carts entails the following measures. They must be cleaned daily with detergent and water. Wells in carts must be destained periodically. On a rotating basis, carts are placed in a freezer or fumigating chamber for a specified time to destroy insects in crevices and walls, cleaned with scalding water or steam to prevent accumulation of grease, vacuumed to remove dust from refrigeration units and screens covering units, and sent to the medical maintenance shop for lubrication and replacement of worn parts.

102. Sanitation and Maintenance of Facilities and Supplies

Production of clean food depends upon the sanitation and proper maintenance of physical facilities where food is stored, prepared, and served and dishes, containers, and utensils used in preparing and serving food. Procedure must be developed for such activities as cleaning food preparation and serving areas; washing dishes, pots, and pans; disposing of garbage and trash; and controlling arthropods and rodents. For sanitation and maintenance requirements see AR 40–5 and TM 8–503.

103. Inspections

a. Inspections are made for the purpose of improving food service operations. Every effort must be made to promote this understanding among all food service personnel. The chief, production and service branch, works closely with the chief, food service division, in establishing a program for formal and informal inspections.

b. Continual daily inspections is the responsibility of all supervisors and leaders. They should be taught to identify and correct discrepancies readily. During periods when workload is at its peak, the first discrepancies to occur are usually in sanitation. Thus, strict compliance with sanitation requirements should be emphasized continuously.

104. Microwave Ovens

Guidance should be sought from U.S. Army Environmental Hygiene Agency (USAEHA) or preventive medicine personnel when purchase of microwave ovens is planned. Requests for assistance from USAEHA should be addressed The Surgeon General, Department of the Army, ATTN: MEDPS–PO, Washington, D.C. 20315. Preventive medicine personnel will take densiometer readings to determine if microwave leakage occurs around door and hinges of the oven. These determinations should be made before purchase of the oven, after installation of the oven, and every 9 months during operation.

CHAPTER 8

HOLIDAY, PICNIC, AND OTHER MEALS

105. Holiday Meals

Holiday meals are usually considered to be the Thanksgiving and Christmas dinners, but traditional food and decoration may be planned for other holidays. It is customary in Army hospitals for holiday meals to be served at noon.

106. Planning for Holiday Meals

The chief, production and service branch, must consider several factors in planning for holiday meals. The commander may extend guest privileges to families of patients and duty personnel. Medical and dental officers may liberalize dietary prescriptions for the patients. The food quantities required must be based upon smaller serving portions because of the increased number of menu items to be served. A schedule must be established for advance preparation of certain menu items. *For example*, fruit cake should be prepared by the pastry unit 6 to 10 weeks before the holiday. Holiday tray covers and other decorations may be procured 3 months or more in advance. As the holiday approaches, each unit should be provided an outlined of its responsibilities, including the numbers of the standardized recipes to be used and special instructions for preparing, garnishing, and serving various menu items. (See TM 8-503 for budgeting of holiday items.)

107. Meals for Other Special Occasions

Occasionally the food service division is called on to serve special meals at times other than holidays. In some instances the chief, food service division, may wish to institute special meals for patients. An example of this is a Sunday morning brunch which may be served over a longer time than the scheduled meal hours and take the place of the breakfast and dinner meal. Other examples are special meals planned for psychiatric patients, tubercular patients, or other patients with long term illness. Local procedures should be developed for this type of service.

108. Picnic and Special Activity Meals

The nursing service, special services, American Red Cross, and other organizations may have approval from the local commander to request picnic lunches and special activity meals for patients and enlisted personnel authorized to subsist in the hospital dining hall. The request is submitted to the chief, food service division. Production and service personnel are then responsible for the planning, preparation, and serving of the meal, using personnel of the requesting service as much as possible in doing the work.

109. Planning for Picnic and Special Activity Meals

The function of preparing and serving picnic and special activity meals is costly in terms of manhours expended. A local SOP should be established. The procedure will assure that the special meal is ready at the specified time and place and all personnel involved are aware of the activity requirement. The chief, production and service branch, writes the local procedure to include the following:

a. A reasonable period of time between the date of the request and the date of the activity. A reasonable period is one that will enable production and service personnel to obtain large quantities of the desired foods and supplies without disrupting their working relationships with personnel of the commissary and other supply sources.

b. A request document which includes the following:

(1) Signature of the person authorized to approve such an activity.

(2) Name of the requesting service or organizatcn.

(3) Name and telephone number of the person who initiated the request.

(4) Type of activity for which the meal is requested.

(5) Date, time, and place of the activity and time when the meal is to be served or picked up.

(6) Total number of persons to be served.

(7) Name and ward number of each patient to whom a regular diet is to be served.

(8) Name and ward number of each patient to whom a modified diet is to be served and type of modified diet to be served each patient.

(9) Names of Army enlisted personnel who are to be served a meal and are not on separate rations (no cash charge).

(10) Names and branch of service of other enlisted personnel who are to be served a meal and are not on separate rations (no cash charge).

(11) Names of enlisted personnel, officers, and guests who are to be served meals on cash basis.

(12) Explanation of the arrangements which have been made for making the cash collections and obtaining the signatures of those persons who must pay cash for meals before eating ((11) above).

(13) Menu or list of food items to be served. If the cost of the menu desired by the requesting service considerably exceeds the value of the ration, the chief, food service division, consults the chief, administrative services, and resolves the problem.

(14) Equipment and supplies, besides food, desired by the requesting service.

(15) Name of the person who is to sign the hand receipt for any food service equipment to the area where the meal is served and is to be held responsible for returning it to the food service division.

110. Records of Meals

The numbers, by category, of persons served picnic lunch or a special activity meal are recorded on the ration source data worksheet for ration accounting.

111. Other Special Meals for Patients

a. Requests. Meals are requested for patients en route to other medical facilities and for patients admitted to the hospital during other than normal duty hours. Although these requests are infrequent, they present a special problem to the production and service branch because of the unpredictable times when they are received. An SOP that personnel on duty can easily follow is especially important to the effective fulfillment of this function.

b. Guides for Developing Local Procedure.

(1) Representatives from the nursing service, admitting office, and food service division should collaborate in developing an SOP which satisfies the requirements of these organizational elements. The following information should be included in this SOP:

(*a*) Position title and organizational entity of the person responsible for requesting meals from food service division during other than normal duty hours. During normal duty hours, routine procedures are followed.

(*b*) Position title of the person who can approve such requests when they are received in food service division during other than normal duty hours.

(*c*) Means by which the request may be made—in writing or by telephone—and means by which a request may be canceled.

(*d*) Data which must be included in the request, such as the following:

1. Name and ward number of the patient, type of diet desired for the patient; and, if appropriate, the number of meals required for drivers and attendants.

2. Where the meal(s) will be eaten, in the dining hall, on the ward, or en route.

3. If appropriate, special measures required, such as isolation.

4. Name of the person responsible for pickup and delivery of the meals if they are to be eaten in place other than the dining hall.

5. How payment for the meals is to be made, in cash or by specified authorized subsistence.

6. If appropriate, name of person who is responsible for making cash payment to food service division and obtaining the signatures on the guest logs for persons paying in cash.

(2) As the chief, production and service branch, sometimes receives requests for food items which he is not authorized to provide, it may be necessary to list such items and the governing regulation in the standing operating procedure for reference. Requests received most often are snacks for blood donors, sugar for pharmacies, and ice for general hospital use. Procurement of these items is governed by AR 31–200. Although commercially prepared baby formulas may be provided by production and service branch, they are budgeted as supply items in accordance with the policy of The Surgeon General and not as subsistence items. The cost of these items should not be reported on the hospital food service report.

(3) The chief, production and service branch, should establish another SOP for use of personnel

who will prepare the meals requested. It should contain specific instructions for preparing box lunches and general guidelines for cooking meals at irregular hours.

112. Diets for Duty Personnel

a. General. An excessive number of diets for duty personnel places a burden on all elements of the food service division and reduces effectiveness of the dietary treatment program for patients. Chiefs of both diet therapy and production and service branches must inform the chief, food service division, of any problems encountered in providing this service to duty personnel.

b. Guides for Developing Local Procedure. A standing operating procedure must be developed locally for the use of medical officers who prescribe the diets, duty personnel for whom diets are prescribed, and personnel of the food service division. This prevents misunderstandings and insures proper coordination and control. The procedure should include the requesting, planning, instructing, serving, accounting, and reviewing aspects of this function.

113. Four or Five Meal Regular Menu

A recent trend in feeding hospitalized patients is a menu with four or five meals a day rather than the traditional three meals. When a four or five meal schedule is being considered, available personnel and equipment and employee scheduling need to be reviewed for adequacy. Since the nursing service is affected by such a schedule, it is necessary to consult them. The hospital menu planned for four or five meals cannot exceed the local value of the hospital daily food allowance. The following are the suggested menu and meal hours for a five meal menu. Serve cereal, juice, and coffee at 0800 hours. Serve a hot meal of eggs and toast at 1000 hours. At 1400 hours serve the main meal of cooked meat, potato, vegetable, salad, dessert, bread, and beverage. At 1800 hours, serve a meal of soup, sandwich, and beverage. The fifth meal could be cookies, milk, juice, or coffee.

APPENDIX A

REFERENCES

AR 31–200	Commissaries; Army Commissary Operating Procedures
AR 40–2	Army Medical Treatment Facilities General Administration
AR 40–4	Army Medical Department Facilities
AR 40–5	Preventive Medicine
AR 40–25	Nutritional Standards
AR 40–330	Rates for Army Medical Department Activities for Fiscal Year 1971
AR 40–418	Beds and Patients Report
AR 40–657	Veterinary Food Inspection
AR 310–1	Military Publications—General Policies
AR 420–17	Repairs and Utilities—Work Management
AR 711–16	DSU/Installation Stock Control and Supply Procedures
AR 735–5	Property Accountability—General Principles and Policies and Basic Procedures
AR 735–11	Property Accountability—Accounting for Lost, Damaged, and Destroyed Property
AR 735–35	Property Accountability—Supply Procedures for TOE and TDA Units or Activities
AR 750–1	Maintenance Concepts
AR 750–5	Organization, Policies, and Responsibilities for Maintenance Operations
TM 5–632	Military Entomology Operational Handbook
TM 8–500	Hospital Diets
TM 8–502	Diet Therapy Management
TM 8–503	Hospital Food Service Administration
TM 10–405	Army Mess Operations
TM 10–418	Meat Processing Ration Issue
TM 38–750	The Army Maintenance Management System (TAMMS)
TA 50–911	Equipment for Food Service Facilities Serving Field Installations, Troop and Hospital Trains, and Army Vessels
SB 10–260	Master Menu (Monthly)

Technical Report 67–15–PR, *Analysis of U.S. Army Food Preference Survey* (1963)

APPENDIX B

LIST OF STANDING OPERATING PROCEDURES AND ILLUSTRATIVE MATERIAL

It is suggested that the standing operating procedures and illustrative materials listed below be developed as required locally and inserted into this text.

1. Organization chart.
2. Job descriptions.
3. Procedure for writing master menu.
4. Procedure for writing advance requisitions.
5. Procedure for writing cook's worksheet, code line worksheets or food production worksheets, recipe worksheets, and personnel production worksheets.
6. Procedure for ingredient room operation.
7. Procedure for writing kitchen requisitions.
8. Procedure for procurement of emergency items of subsistence.
9. Procedure for direct delivery of subsistence items.
10. Procedure for security of subsistence supply section.
11. Meat processing record.
12. Vegetable preparation worksheet.
13. Procedure for preparing and submitting DA Form 3161, Request for Issue or Turn-In.
14. Calendar for preparation and distribution of menus.
15. Fresh fruit availability list.
16. Fresh vegetable availability list.
17. Charts of monetary value of the hospital daily food allowance.
18. Commissary price list.
19. Temperature logs for refrigerator.
20. Individual portion food cost reports.
21. Menu item acceptability reports.
22. Menu suggestions.
23. Hospital food service food ordering guide.
24. Monthly inventory.
25. Procedure for night meal operation.
26. Special techniques of cookery for patient tray service and dining hall service.
27. Score sheet for recipe evaluation.
28. Patient tray service procedures.
29. Isolation tray procedures.
30. Procedure for serving psychiatric patients.
31. Procedure for serving ambulatory orthopedic dining hall patients.
32. Procedure for operation of modified diet cafeteria line.
33. Procedure for delivery of nourishments.
34. Procedure for food cart maintenance and extermination.
35. Procedure for holiday meals, special activity meals, picnics, and diets for duty personnel.
36. Procedure for feeding air or train patient evacuees.

APPENDIX C

ABBREVIATIONS

Apple	app
Asparagus	aspa
Assorted	asst
Baby food	BF
Baked	bk
Baking powder	bak powd
Banana	ban
Blackberry	blackb'y
Bland	bl
Blueberry	blueb'y
Boxes	bx
Braised	brs
Breaded	brd
Breakfast	B or break
Broiled	brl
Brown	br
Bunches	bch
Buttered	bu
Butterscotch	bu'scotch
Cabbage	cabb
Cake	ck
Calorie restricted	Cal/R
Canned	* or cnd
Cans	cn
Carrots	carr
Case	cs
Celery	cel
Cereal	cer
Chicken	chix
Chilled	ch
Chocolate	choc
Coconut	c'nut
Combination	comb
Controlled	C or contr
Cooked	ck
Crackers	crax
Cream	crm
Cucumbers	cu
Cup	C
Dietetic or dinner	D
Diet Therapy	DT
Dining hall	DH
Dressing	drsg
Escalloped	esc
Exchange	exch
Extra	ex
Fat controlled	F/C
Fat restricted	F/R
Filling	flg
Food Service Division	FSD
French fried	fr fr
Fresh chilled	***
Frozen	Z
Fruit	frt
Fruit cocktail	frt cock
Grams	gm
Grapefruit	grpfrt
Green onion	gr on
Green pepper	gr pep
Grilled	grl
Ground	grd
Hard cooked	HC
Icing	Ic
Individual	ind
Island	isl
Juice	jce
Julienne	jul
Large	lg
Lemon	lem
Lettuce	lett
Maraschino cherries	m/cherries
Marshmallow	marsh
Mashed	msh
Mayonnaise	mayo
Medium	med
Milligrams	mg
Mixed with	w/
Nourishment	nour
Number	#
Onion	on
Orange	or
Ounces	oz
Package	pkg
Paprika	papr
Parsley	pars
Pineapple	p/a
Pint	pt
Potatoes	pot
Pounds	lb
Powdered	powd
Powdered sugar	xxx
Production and service	P&S

Pureed	pur
Quarts	qt
Radishes	rad
Raspberry	rasp'y
Regular	reg
Restricted	R or restr
Roast	rst
Royal anne cherries	ra/cherries
Salad	sld
Sandwiche	sand
Sauce	sc
Scrambled	scr
Seasoned	seas
Sections	sec
Serving	serv or svg
Sliced	sli
Small	sm
Smothered	smoth
Sodium–Fat Restricted	Na–F/R
Sodium restricted	Na/R
Soft cooked	SC
Special	spec
Strained	str
Strawberry	strawb'y
Substitute	sub
Supper	S
Tablespoon	tbsp
Teaspoon	tsp
Toast	tst
Tomato	tom
Topping	tgp
Trimmed	trm
Turkey	turk
Vegetable	veg
Vinegar	vin
Ward	wd
Whipped	whp
Whole kernel	WK
Whole wheat	WW
Without	w/o

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NG: State AG (3); Div (1); Bde (1); TOE 8-571 (4); TOE 8-581 (4).

USAR: None.

For explanation of abbreviations used, see AR 310-50.

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